

# ECONOMICS

FOR

INDIAN STUDENTS

VOL. I & II

**INTRODUCTION, CONSUMPTION, PRODUCTION  
TAXATION, EXCHANGE & DISTRIBUTION**

BY

**M. D. TANDON**

*Lecturer in Economics*

*Dharma Samaj College. Aligarh*

---

**SECOND EDITION**

**REVISED AND ENLARGED**

---

**PRICE Rs. 6/8/-**

---

**G. R. BHARGAVA & SONS**

*Printers, Publishers & Booksellers*



**CHANDAUSI**

**1945**

ALL RIGHTS RESERVED

-----

PV 86

Wr.  Ch. 

## P R E F A C E

This book has been written at the request of my students, and is published in the hope that others too would find it useful in their work

The aim of the author has been to confine the subject matter of the book mainly to the needs of students preparing for the Intermediate Examination. Wherever necessary, additional information has been given in small print in the form of foot-notes to make the book useful even to advanced students.

Figures, charts and diagrams have been freely used throughout, and practical and numerical work has been allotted a special section. Illustrations have been taken from everyday life in India, and as up-to-date an account has been given as possible. At many places comparative tables for other countries have also been given to arouse interest and stimulate thought.

One of the greatest difficulties for the beginner is that of selection from the enormous mass of subject matter scattered over in different publications, and of grasping the continuity and interrelation of the various topics. The author has, therefore, assimilated into the body of the book all that is required from standard writers on Economics and from Govt. publications and reports, without forgetting the need of presenting the subject-matter in a manner in which it may be most easily grasped by Indian students making their first acquaintance with the subject.

It is hoped that students will find in the book all the information they need, and will find the study of it pleasant and stimulating.

## PREFACE TO SECOND EDITION

In this edition a few slips have been corrected, some facts and figures have been brought up-to-date, and certain portions have been re-written. The aim throughout has been to make the book as useful to the students as possible. The book, of course, claims no originality—the author has proceeded along generally accepted lines, and has only tried to put the principles of Economics before the students in a simple and easily understandable form.

*30th Sept. 1945.*

THE AUTHOR



CHAPTER	VOLUME II <i>EXCHANGE</i>	PAGE
1.	What is Exchange ?	3
2.	Markets—India's Foreign Trade.	10
3.	Demand and Supply.	30
4.	Balancing of Demand & Supply—How Value is determined ?	44
5.	From Barter to money.	65
6.	Metallic money and paper money.	74
7.	Monetary Standards—Indian Currency System.	84
8.	Credit money.	102
9.	Value of money.	131
10.	Banks and Banking.	145
	<i>DISTRIBUTION</i>	
11.	The Problem of Distribution.	185
12.	Rent	195
13.	Wages.	228
14.	Interest.	257
15.	Profits.	269
	<i>PRACTICAL &amp; NUMERICAL</i>	
A	General Heads for Economic Survey	III
B	Collection of Facts and Figures for Family Budget	IV
C	Groups of Heads of Consumption Budgets	VI
D	Consumption Budget of a Cultivator	VIII
E	Consumption Budget of a Mason	XII
F	Comparison of Budget of a Cultivator in a Village and a Clerk in a Town	XV
G	Statement of expenses of production of a Cultivator	XVII
H	Statement of the expenses of production of a Village Weaver	XXIII
I	Statement of the expenses of production of a Sugar Mill	XXV
J	Some questions and answers	XXVII

# CONTENTS

— 00 —

CHAPTER	VOLUME I	PAGE
	<i>INTRODUCTORY</i>	
1	What is Economics ?	1
2	Relation of Economics to other Sciences	22
3	The Departments of Economics	31
4.	The Meaning of Wealth	37
5.	Development of Economic Life	45
	<i>CONSUMPTION</i>	
6.	What is Consumption ?	53
7.	Wants — Their Characteristics and Their Classification	59
8	Measurement of Wants (Utility)	71
9	Economics of Spending and Saving	97
	<i>PRODUCTION</i>	
10	What is Production ?	113
11	Land—Natural Resources of India	121
12	Labour	151
13	Capital	178
14	Organization	209
15	Division of Labour	225
16	Large Scale Production and Small Scale Production.	242
17.	The Laws of Returns	255
18	Production in India	269
	<i>TAXATION</i>	
19	Direct and Indirect Taxes	291
20	Imperial, Provincial and Local Taxation	302

# VOLUME I

INTRODUCTORY

## CHAPTER 1

### WHAT IS ECONOMICS ?

#### Definition of Economics :—

If we look around us in this world we find that we all have certain wants or desires which need to be satisfied: when we feel hungry, we want food; when the winter season is on, we want clothes; when it rains or dust-storms come, we want houses; when we fall ill, we want doctors and medicines; when we have to educate children, we want books and teachers. Similarly, we want pictures, musical instruments, articles of furniture, motor cars, railways, and a thousand and one other comforts and luxuries—for our wants are always increasing and know no end.

Now the means by which these wants can be satisfied in this world are scarce. There is not enough of everything for everybody in this world. Certain things like air, water, and sunshine are free gifts of Nature, and are available in abundance; but most other things that we want and desire cannot be obtained without effort—we have to work and increase the quantity of goods so as to make up for their insufficiency. Thus we find that every one of us in daily life is making these *efforts* in one form or the other. Men, women, and children work in the field from morning till evening; labourers work in the factory, and clerks in the office, for long hours; shopkeepers sit in their shops from early

morning till late in the evening; railway servants and watchmen work even during the nights; doctors attend to their patients at all odd hours; lawyers are willing to do all kinds of work for their clients; students go on working hard on their books; and the whole world, indeed, is at work.

*Man is a bundle of wants, and makes efforts to satisfy these wants. The things that satisfy the wants, and are scarce, are known as economic goods (or wealth); and the efforts that are made, or the activities that are undertaken, to satisfy these wants are known as economic activities. And the study of these wants and activities of man—"the wealth-getting and the wealth-using activities"—is known as Economics.*

Very simply stated, Economics seeks to explain what is daily going on all around us—how people, young and old, men and women are all striving to earn a living (*"Pet ki khatir"* as they say). [We must, however, note here that non-economic activities of human beings lie beyond the province of Economics. For example, Gandhi and Jinnah work for the country out of a spirit of patriotism; students play cricket and tennis for the sake of pleasure; and mothers look after their children out of love and affection. Such activities are non economic as they are not undertaken for the sake of wealth (*"Pet ki Khatir"*); and they are not considered in Economics.

Coming now to the definition of Economics by great writers on the subject, here are some of the definitions:—

Just as in a football game, the man who knows the game fixes his attention on or near the ball to watch the movements of the players intent upon kicking or clearing the ball, similarly, in the economic game, we want to study those movements of the people which centre round wealth and we fix our attention upon wealth so that we may study these movements better. The subject of our study, however is not wealth, but man and his welfare.

(2) Though Economics is the study of man, it is only a part of the study of man. It concerns itself with only the economic aspect of his activities.

Man's activities are said to be of two kinds (i) *economic*, i. e. activities which deal with wealth, with what men do in order to acquire and use wealth—money-getting and money-spending activities ; and (ii) *non-economic* i. e., activities arising out of love, family affection, spirit of patriotism, or communalism, love of art, pity, shame, religion, etc., etc., e. g., a wife attending her husband in the sick-bed ; a mother taking care of her child ; a musician singing for pleasure ( not for money ) or a tourist climbing a mountain merely to enjoy the beauties of Nature ; a person going to a temple to worship his gods ; a person helping in the organisation of the Hindu Sabha or the Muslim League ; and a Gandhi or Budha going out to preach "Ahimsa". And, in Economics, we are said to be concerned with only the former class of activities.

Modern economists, however, think that this is not the correct view. They believe that activities

as such cannot be economic or non economic, but that every activity of man has an economic aspect, a political aspect, a religious aspect, etc, etc and Economics seeks to study the economic aspect of all of man's activities

However, by saying that every activity of man has an economic aspect, it is not meant that man is always led by the motive of wealth and by no other motive, or that he works simply to serve his self-interest and never does anything out of love or affection, sentiment or patriotism. Such was the belief of the earlier economists who had the conception of the 'economic man', and thought that he was always actuated by the desire for wealth, and never did anything except for the sake of wealth—for example, they thought that if the father took care of child it was in the hope of getting wealth and comfort from the child later on, and if the wife attended her husband on the sick bed, it was because the husband provided material comforts to the wife. Modern economists recognise that man is a creature of impulse, of fear, of love and hate, etc, etc, and does things for all sorts of reasons, even though the strongest incentive for work in most cases is the desire for wealth. However, for the sake of convenience of study they study only one aspect of man, the economic aspect—the study of all the aspects would be too huge a task, indeed, for any one science.

(3) Economics is a social science. It considers the activities and wants of men who live in society, and not of men who live the lonely life of a Robinson Crusoe or a Sanyasi.

Economics deals with man in his relation to society. It studies the average actions of men living in society, earning and spending in society; for, in whatever position a man may be, he is necessarily a member of the big human society, in which, every individual member works to produce what some one else wants, and obtains in exchange for the product of his labour, the food, the house, the clothing, the recreation, and all other things which he wants. We depend upon our neighbours for the satisfaction of our needs, and they depend upon us. Our economic activities affect them as their activities affect us. And thus the activities of persons living in solitude, *e.g.*, the activities of Robinson Crusoe working all alone in his island or of a Sanyasi sitting on the top of the Himalayas, are out of the scope of Economics, because they are centred round one person and form an exception to the general rule of life.

(We must, however, note that neither PROF. MARSHALL nor PROF. ROBBINS calls Economics a social science. After all, there are certain laws in Economics which would be true even if there were only solitary men living in this world—for example, the law of diminishing utility would operate in the case of Robinson Crusoe also.)

#### **(4) Economics is both a science and an art—the SCOPE of Economics.**

A *Science* is a systematised body of knowledge. It simply finds out facts as they actually are, or have been. It assumes nothing to be good and nothing to be bad, and does not say what is desirable and what



as such cannot be economic or non-economic, but that every activity of man has an economic aspect, a political aspect, a religious aspect, etc., etc and Economics seeks to study the economic aspect of all of man's activities.

However, by saying that every activity of man has an economic aspect, it is not meant that man is always led by the motive of wealth and by no other motive, or that he works simply to serve his self-interest and never does anything out of love or affection, sentiment or patriotism. Such was the belief of the earlier economists who had the conception of the 'economic man', and thought that he was always actuated by the desire for wealth, and never did anything except for the sake of wealth—for example, they thought that if the father took care of child it was in the hope of getting wealth and comfort from the child later on, and if the wife attended her husband on the sick bed, it was because the husband provided material comforts to the wife. Modern economists recognise that man is a creature of impulse, of fear, of love and hate, etc., etc., and does things for all sorts of reasons, even though the strongest incentive for work in most cases is the desire for wealth. However, for the sake of convenience of study they study only one aspect of man, the economic aspect—the study of all the aspects would be too huge a task, indeed, for any one science.

(3) **Economics is a social science.** It considers the activities and wants of men who live in society, and not of men who live the lonely life of a Robinson Crusoe or a Sanyasi.

Economics deals with man in his relation to society. It studies the average actions of men living in society, earning and spending in society; for, in whatever position a man may be, he is necessarily a member of the big human society, in which, every individual member works to produce what some one else wants, and obtains in exchange for the product of his labour, the food, the house, the clothing, the recreation, and all other things which he wants. We depend upon our neighbours for the satisfaction of our needs, and they depend upon us. Our *economic activities* affect them as their activities affect us. And thus the activities of persons living in solitude, *e.g.*, the activities of Robinson Crusoe working all alone in his island or of a Sanyasi sitting on the top of the Himalayas, are out of the scope of Economics, because they are centred round one person and form an exception to the general rule of life.

(We must, however, note that neither PROF. MARSHALL nor PROF. ROBBINS calls Economics a social science. After all, there are certain laws in Economics which would be true even if there were only solitary men living in this world—for example, the law of diminishing utility would operate in the case of Robinson Crusoe also.)

#### **(4) Economics is both a science and an art—the SCOPE of Economics.**

A *Science* is a systematised body of knowledge. It simply finds out facts as they actually are, or have been. It assumes nothing to be good and nothing to be bad, and does not say what is desirable and what

is not desirable It only *describes*, and tells us that such and such a thing would follow under such and such circumstances, that if we did such and such a thing, the result would be such and such, etc etc. It plays the part of a reporter It simply observes things and notes them down It does not suggest any course of action For example, the science of Chemistry only tells us that if opium is taken by a person, it will have a bad effect, but it does not tell us whether a person should or should not take opium

An *Art*, on the other hand, has some practical end in view, *e g* the arts of painting and photography of building and engraving, which tell us how to have a good picture or photograph or building, etc It not only describes, but also *prescribes* That is to say it not only finds out facts as they are but also points out what they ought to be It teaches us not only to know, but also to do It lays down rules of guidance

Judged in the light of this difference between a science and an art, Economics is surely a science It does not teach us how to be wealthy, or how to be economical It only gives us the laws of production consumption exchange and distribution—how production and consumption improve why wages rise and fall, why interest is paid what determines the rate of interest who bears the tax, etc, etc. It is not concerned with the right or wrong, good or bad of man's actions and desires, or with the justice or injustice of the structure of society For example it has not to consider whether wages should

be allowed to fall, whether interest should be allowed to go high, whether the drink trade should be permitted, whether the rich should be allowed to grow richer and the poor poorer. etc., etc.

*"Economics deals with means; the study of ends lies outside its scope."*

ROBBINS.

The business of the economist is merely to deal with facts and figures. He is to explore and to explain, not to uphold or condemn; not to paint a moral or adorn a tale.

*However, we must not forget that while Economics is undoubtedly a science, there is also something like the art of Economics.*

The art of Economics aims at improvement in production and consumption. For example, the function of Economics is not only to point out the scientific laws that actively control production and distribution, but to show how production and distribution of wealth should be regulated, that is, how we should utilise the natural and human resources best for the promotion of social welfare, how we should improve production and bring about a better distribution of the wealth of a nation among its members, how we can compel high wages, how we can prevent high rates of interest, how we can stop the growth of population, etc., etc. To take a simple instance, Economics not only tells us why a country is poor, but also points out how that poverty can be removed. If it tells us only that India is poor, and does not suggest means and methods of reform by which that poverty can be removed it would be of little value to

us, indeed. And thus Economics is an art as well as a science.

In fact, in recent years the scope of Economics has been very much extended. Economists have now crossed the stage of mere exploration and explanation of fact, and have begun suggesting measures for improving the social welfare. Economics is, at the same time, a positive science (what is), a normative science (what ought to be), and an art (how this object can be achieved).

(5) In arriving at the laws in Economics the deductive and the inductive method both have been used by the economists—the METHOD of Economics.

There are two methods by which a scientist may proceed in his investigations, and discover the relationship between cause and effect (the laws of the subject). They are known as deductive method, and inductive method. The most essential feature of the inductive method consists in reasoning from the particular to the general, *e.g.*, if we observe that A is a man and desires to have wealth; B is a man and desires to have wealth; C is a man and desires to have wealth and so on, then we can at once infer that all men desire to have wealth. The essence of the deductive method on the other hand, consists in reasoning from the general to the particular; *e.g.* if we assume that all men desire to have wealth, then we can agree that since X is a man, he also will desire to have wealth.

As Economics is also a science and has its laws, the question arises: which of the two methods is of

greater importance in Economics? The answer is that both deductive and inductive methods have been used by the Economists, and both are equally important. *Induction and deduction are both necessary for the science, just as the right and the left foot both are needed for walking; and whether we use one method or the other we have to take the help of the alternative method in almost every case.* Says Marshall:

*"There is not any one method of investigation which can properly be called the method of Economics; but every method must be made serviceable in its proper place."*

Economists of the 17th and 18th centuries believed that the laws of Economics could be deduced by the deductive method. They made certain generalisations ( for example, they assumed that men were "economic men", who did everything selfishly for the sake of wealth only ); and they deduced the whole of Economics from these assumptions. But the mistake of these writers lay in the fact that they started with insufficient data, and their assumptions very often could not be borne out by reality. For example, the idea of the "economic man" was not absolutely correct—the average man need not be guided by selfish motives alone, but may do a thing out of love, affection, or patriotism, etc.; and thus the conclusions also could not be correct. For this reason, others recommended the adoption of the inductive method for economic investigation. This method consisted in the observation of facts from history, and then in drawing conclusions from

subsequent facts and figures. But there were difficulties in this method, too, for 'observation of facts is very difficult in the social sciences, and we cannot see through them by observation alone. Besides, it is difficult to make experiments in Economics and thus verify our conclusions. We cannot experiment with men as we can with chemicals. Men are interested in the result and may try to change it. For instance, the manager of a factory proposes to see whether there is any difference in production by curtailing the hours of work, and he reduces 9 hours of work to 8 hours of work. The labourers, who are interested in the result, may work harder and produce more with 8 hours of work than they did with 9 hours, but then when 8 hours' day is established they may not work so well as they did in the previous year of trial, with the result that they may not produce as much as they did when they worked 9 hours a day. In fact we cannot rely on any one method only. The inductive method must always be tested by means of deduction and the deductive method must always be tested by means of induction. The conclusions of deduction are likely to be *false*, the conclusions of induction alone are *narrow*, for they can only apply to the one place and the one time in which the facts are observed.

However in certain departments of Economics the investigator can rely more upon the deductive method, and in other departments he can depend more on the inductive method. In the department of production for example where the opportunities for theorising are rare and where we are brought

in touch with the reality of life. inductive reasoning has a greater importance. Thus, for example, the laws of increasing and diminishing returns, the principle of substitution, and the law of population, can be studied only with the help of patient observation and the inductive method. On the other hand, in the study of consumption and exchange in which we have to deal with mere abstract and general principles, the deductive method is more applicable.

**(6) Though Economics is a science, the laws in Economics are less definite than in other sciences. They are essentially hypothetical.**

All sciences have their laws. Physics has its laws, *e.g.*, the law of gravitation. Chemistry has its laws, *e.g.*, the Boyle's law. Similarly, Economics has its laws, *e.g.*, the law of demand which tells us that if the price of mangoes, say, rises, the people will usually purchase a smaller number of mangoes than before—a higher price for a thing leads to a fall in demand.

Now all laws lay it down that certain causes will lead to definite results which we can calculate beforehand. And so does Economics. But there is a slight difference between the laws of Economics and the laws of other sciences. In Economics circumstances are rather complex and laws are changing, because human will enters in human relations, and it becomes difficult to form definite conclusions—we have to deal not with water or clay, as in Physics and Chemistry, but with 'man', whose motives and conditions, activities and relations are always changing; and naturally our conclusions are less



exact. For example, on the basis of the law of gravitation, the astronomer can calculate beforehand and say definitely years before that an eclipse will occur at such and such time on such and such day or night in such and such month. But we cannot calculate like this in Economics. For example, there is a law in Economics that when the price falls, the demand increases. Suppose the charge for supplying gas is lowered. Then according to the law, the demand for gas must increase. But, suppose in the meantime, electric supply becomes more popular, and people begin to use electricity in place of gas. In that case the demand for gas instead of increasing may decrease. Similarly, we find that in these days of war demand has not fallen though prices have gone up tremendously.

MARSHALL, therefore, says:

*"The laws of Economics are to be compared with the laws of tides rather than with the simple and exact law of gravitation."*

The science of tides explains why tides rise and fall twice a day under the action of the sun and the moon; yet the laws of tides are not exact, as a sudden fall of rain, or a strong wind, may upset the whole calculation, and the movements of the tides at that place may differ widely from what has been expected. Similarly, a sudden change in the will of a certain community may change the whole course of economic expectations. Men have free-will, and there can be no guarantee that they will behave similarly under similar circumstances.

For this reason it is said that the laws in Economics are *hypothetical*—they are true only under

certain conditions. We never say in Economics that this must always happen. It may or may not happen. All that our law states is that this will usually happen, "other things remaining the same", or "other things being equal." This does not, however, mean that economic laws are not laws. Only they are subject to more exceptions.

[We must, however, note here that though Economics is not as exact as the physical sciences are, it is the most exact of all social sciences. In Economics we have an external measure for measuring human motives—the measuring rod of money, or rupees, annas and pies; and this gives a degree of exactness to Economics which is not possessed by any other social science.]

### **Value of Economic Studies.**

#### *Theoretical importance:*

Economics has a great value as a science. It sharpens the intellect, and develops the faculty of reasoning. It develops the power of observation, and the sense of judgment. It is a good mental exercise. But more than this, it broadens our outlook, and gives us a wider conception of men and matter. It gives us the laws and causes that govern the consumption production, distribution, and exchange of wealth. It tells us about the organisation of industry, trade, and commerce. It points out the factors determining price, density of population and efficiency of labour. It shows us what place we occupy in the structure of the nation, and what part we play in the complicated economic mechanism of today.

*Practical Importance.*

(i) Economics tries to answer two questions—why one man is richer than another, why one nation is richer than another. It discusses the questions relating to the best utilisation of natural and human resources. And the study of such a subject cannot be without use to anybody.

For example we learn why Indians are poor in a rich country—income per head of population is only a little over Rs. 100 per annum in India as compared with Rs. 1000 per annum in England and about Rs. 2000 in U. S. A.—and we can attempt to remove the causes of this poverty and improve the material welfare of the people of India.

(ii) The laws of Economics are applied to agriculture, industry, and trade, as well as to the consumption and distribution of wealth, and, therefore, the study of Economics makes us more intelligent workers, and traders, more careful consumers, and happier men. For example, we learn how we can improve production by the help of the law of substitution, how we can make use of the law of increasing returns in industry, how we can extend markets, how we can get greater satisfaction in consumption by the principle of equi-marginal utility, how we can check the growth of population, and raise our standard of living, and how we can face the problems of trade depression, and rural indebtedness, etc., etc.

(iii) Economics helps us in matters of social reform. Economists have the aim of increasing the welfare of man. Social reformers also have the aim of increasing the welfare of society. Both

go hand in hand. Economics tells a social reformer to what extent social customs like joint family system, caste system, and purdah system are economically justified, and, therefore, the social reformer can take a comprehensive view of the matter and condemn or defend these social customs. In fact, economic forces are stronger than any other force—child marriages are becoming less common, purdah system is gradually disappearing, and caste system is fast disintegrating, because these are not good from the economic point of view—that is to say, because they bring poverty and misery, not because social reformers say so, or the laws of the country so dictate.

(iv) Above all, the study of Economics is essential for a fuller appreciation of the conditions of modern life—it is an indispensable part of a citizen's education and no person can be a good statesman and a good financier unless he is first a good economist. The fundamental problems of the world at present are essentially economic problems and every government is anxious to find a satisfactory solution of the problems with the help of expert economists, *e.g.*, "Economic Planning" in Russia, "Rural or Industrial Development" in India, and the movement of Socialism throughout the world. People cannot properly grasp such movements without a study of Economics, and the state cannot frame a sound policy without a study of Economics. For example, people cannot easily understand what socialism means, what necessity there is for having Factory Laws and Tenancy Laws, how economic planning should be brought about, what

objections there should be to the levying of such and such taxes; etc., etc. Nor can the finance member regulate the burden of taxation upon different classes of people according to their capacity without having a knowledge of Economics.

Thus the agriculturist and the industrialist, the worker and the trader, the statesman and the reformer, the financier and the citizen, all can benefit by a sound knowledge of Economics.

In fact, even wars are due to economic causes, and success in modern wars depends to a very large extent on the efficient organisation of the economic system. And every day we read in papers these days about schemes of reconstruction and economic planning after the present world war. No one, indeed, can afford to neglect the study of such a subject, much less the Indian whose country is so poor. And rightly has PIGEAU said: Economics is more a fruit-bearing science than a light-giving one.

### QUESTIONS.

1. What is Economics? Why have you taken up the study of the subject?
2. Define Economics, and discuss how it differs from other social sciences.
3. If you had to define Economics to an intelligent uneducated peasant, how would you set about it?
4. Economics has been defined by some writers as the science of wealth. How far is this definition adequate? Discuss it fully.
5. Economics has sometimes been described as the "Science of Wealth." Explain the meaning of the terms "Science" and

"Wealth," and discuss the correctness and adequacy of the definition.

6. "Economics discusses the question relating to the best utilisation of natural, and human resources for the promotion of social welfare " Explain.

7. "Economics is a social science dealing with problems of material welfare and prosperity of mankind." Explain.

8. What is your idea of the scope of Economics ? Is it a science or an art ?

9. "Induction and deduction are both needed for the study of Economics as the right and left foot are both needed for walking." Explain.

10. What is the nature of economic laws ? In what ways are they similar to and different from physical laws ?

11. Discuss the following view of MARSHALL:—

"The laws of Economics are to be compared with the laws of tides rather than with the simple and exact law of gravitation."

12. How far is the study of Economics helpful in practical life. Discuss fully ?

---

## CHAPTER 2

### RELATION OF ECONOMICS TO OTHER SCIENCES

The subject matter of Economics is man. Man is, however, the topic of discussion for a number of other sciences, too. He figures in Sociology, Ethics, Politics, Law, History, Psychology, etc., etc. Naturally there is a close relationship between Economics and these other sciences, and we shall discuss these relationships below —

**Economics and Ethics**—Ethics is the science of morality, of what is morally right and what is morally wrong. It tells us what we ought to do, and what we ought not to do, e.g., whether we should tell a lie or not, whether we should have regard for others or not, etc., etc.

Now from the scientific point of view, Ethics should have nothing to do with Economics. The function of Economics is not to pass ethical judgments. It has nothing to do with the question whether the consumption of liquor is morally good or not, whether the tools of the house-breaker are morally allowable or not. But from the practical standpoint no solution of an economic problem can be considered until its ethical aspects have been considered, too. For example, however much one may like to remove poverty from India, no one would ever think of encouraging the poor to commit thefts and dacoities in the houses of their rich neighbours, because Ethics does not permit this. Simi

larly, no Government would encourage the drink-trade, because drinking is considered morally bad. .

Again, we are always making such statements in Economics—"Labourers must get fair wages", "Landlords should receive fair rents" "Tenants must be fairly treated", "Moneylenders must not be allowed to charge high rates of interest", "The rich must be taxed more than the poor", "It is not fair to make the labourers work long hours", "It is not proper that the rich should have costly luxuries, while the poor are starving" etc., etc, and these are all ethical considerations. The fact is that modern economists do not look merely to the increase of wealth, but to general social welfare; and this means that our economic institutions and activities have to be guided by ethical standards. Almost at every step it is the duty of an economist to see that he is not recommending any course of action which is likely to result in the moral degradation of the people for whose benefit he is working. Economics is, indeed, the handmaid of Ethics.

On the other hand, Ethics is also dependent on economic considerations. Economists, for example, find out from observation that indiscriminate charity to sturdy villains promotes idleness and is injurious to society; and Ethics at once draws the conclusion that such charity is bad, and on this basis lays down rules for giving charity to the poor.

**Economics and Politics:**—Politics is the science of the state, and as the organisation and activities of the state influence the economic life of the people, the relation of Economics to Politics is also very close. Economic activities are carried on



work of a state, and are, therefore, affected by its policy. Consumption, production, exchange, and distribution—all are influenced by the policy of the Government in power. For example, in countries like Russia the state has undertaken the task of guiding all important economic activities of the people; and production and distribution of wealth there are fundamentally different from the production and distribution of wealth in capitalistic countries. Even in India the state has constructed railways and canals, and opened agricultural and industrial departments. And if India possessed a national government of its own, there is no doubt that many of our difficulties in the economic matters would have been solved long ago. There is always increased production and better distribution of wealth under a just and sympathetic government than under, an indifferent and unsympathetic government; e. g., India was more prosperous in the congress regime than she has been before or after it. On the other side, the kind of government in a country is also very greatly influenced by the economic institutions in that country, e. g., the government of a country, agricultural in its economic life, differs widely from the government of a country, industrial in its economic life. In fact, Nazism, Fascism, and Bolshevism were all due to a large extent to economic causes.

Besides, there are many social problems, which are common to both Economics and Politics, which have an economic aspect as well as a Political aspect, e. g., customs duties, currency and credit, factory laws, land tenures, and price control during the

present war. These are as much the concern of the state as of the Economist—Public Finance or Taxation is a part of Politics, it is also a branch of Economics.

**Economics and Law:**—The science of law, or Jurisprudence, lays down what a man may or may not do. Law maintains peace and order in the country, and is very necessary for economic well-being. Without peace and order, the economic activities of a country cannot be carried on smoothly. When there is disorder and danger to life and property, the economic development suffers; but when there is peace and order there is progress and prosperity all round. Naturally, there is a close relationship between Economics and the laws of the country.

Trade, commerce, industry, are all based on the laws of the country—when the laws of the country are properly framed, industry and enterprise are promoted, but when the laws are not properly framed, reverse is the case. For example, in England, the eldest son inherits the property of his father, the younger son or sons getting no share in the landed property. The result is that land has concentrated in a few hands, and we have large-scale farming; in India, every son has an equal share, and can get the land partitioned according to law, and this has resulted in small and scattered holdings and in small-scale farming. Every aspect of economic life—trade, transport, banking, currency, the scale of production, the nature of consumption, etc., etc.—is affected by the law relating to it.

On the other hand, the laws of government are also modified according to the changes in the economic conditions of the country. For example, factory system of production made it necessary to pass Factory Laws, the oppression of the tenants by the landlords made it necessary to pass the Tenancy Laws, the heavy expenses of the present war made it necessary to impose the Excess Profits Tax.  $\times$   $HS$   $13596$ .

**Economics and Sociology:**—Sociology is the name given to the whole science treating of man as a member of society. Men living and moving in society develop different kinds of relations with one another, and these different kinds of social relations, as we have seen above, form the subject-matter of different social sciences, Ethics, Politics, Law, and Economics; but all these sciences also form the subject-matter of a general science of society, called Sociology. Sociology deals with the general social relations of man through all his life and history. Obviously Economics is a branch of the all-comprehensive social science, sociology, and is closely related to it, too. The relation of Economics to sociology is that of a species to a genus, of a daughter to a mother, of a part to the whole; and the study of Economics cannot be complete without taking into consideration the parts relating to its sister social sciences, Ethics, Politics and Law, or to the general science of Sociology.

We have next to see that Economics is not only related to its sister social sciences, but also, due to association, to other sciences like History, Psycho-

## CHAPTER 3

### THE DEPARTMENTS OF ECONOMICS

**Main divisions or departments of Economics:—**  
Economics is generally divided into four departments:—

( i ) *Consumption*, which deals with the consuming of wealth or the satisfaction of wants by means of goods. Here we study the character of human wants, the motives affecting the demand for various goods and services, the principles which govern the demand for commodities, etc , etc.

(ii) *Production*, which deals with the producing of wealth or the making of efforts to produce the goods we want. Here we study the natural resources of a country, the ways and means of producing goods from these resources, the conditions under which production can be carried on most efficiently, and the laws which govern productive activities.

(iii) *Exchange*, which deals with the exchanging of wealth or the purchase and sale of goods. Here we study the conditions under which an exchange of goods can take place, the problem of determining their values, and the nature of their markets.

(iv) *Distribution*, which deals with the division or sharing of wealth among those who took part in production, Here we study the question as to what is to be distributed, among whom, and on what principles.

Recently, however, a fifth department, viz., Public Finance, or Taxation, has been added by

economists. This deals with the income or the expenditure of the state.

**All departments of Economics are essentially one.**

These divisions or departments of Economics are closely related and are essentially inter-dependent. They have been separated simply with the view that it may be possible to grasp each problem easily and quickly.

### **(1) Production and Consumption :—**

Production does not stand by itself. It is not an end. People produce wealth because it is required for consumption. They produce only that wealth which is wanted and they give up the production of that which is no more wanted. For example, nobody produces sand in a desert or water near a river; and while formerly felt caps were much in demand and were produced in large quantities, they are neither demanded nor produced these days—they have been substituted by Gandhi caps which are being produced in large quantities. Thus production depends upon consumption.

On the other hand, production also determines or limits consumption—people can consume only that which is produced. It is the production of bicycles and radio sets which has given rise to the increasing use and popularity of these goods. These were not in use formerly, and we can say that consumption also depends upon production. There can be no production without consumption, and no consumption without production.

In one more sense, these two are related to each other. If consumption is better, that is, if the

standard of living of the people is high, the production also is better, e. g., English people have a high standard of living and they are efficient producers, while Indians have a very low standard of living and are very inefficient at production. And if production is better in a country it can generally maintain its people in a better way; while countries which produce less bring about a low standard of life. India has a low production, and her people are poor and have a low standard of life; while England produces more and her people have a high standard of life, too.

## ( 2 ) Production, Consumption and Exchange:—

In modern society each man does not produce all the things used by him. He specialises in the production of a few things and exchanges his special products for those made by others. Thus a shoe-maker makes a hundred pairs of shoes in the month, keeps a pair for himself and sells the remaining 99 pairs to others. If there were no exchange, he could not sell these and would not produce these. The result would be less production, and it can be said that production depends upon exchange. Similarly, if there were no exchange the consumer could not get all the articles of food, clothing, comforts, and luxuries that he wants. He would have to produce them all himself, or would have to go without them. And thus, we can say that consumption also depends upon exchange.

On the other hand, if there were no production or consumption on a large scale, there would hardly be any exchange; and exchange also can be said to depend on production and consumption.

**(3) Production and Distribution:—**

Production depends upon consumption, and consumption, in its turn, depends upon the income that people get in distribution, e.g., if their income is high, they will have a high standard of life and better efficiency and there will be greater production, while if their income is low, they will have a low standard of life and low efficiency, and there will be less of production. It can, therefore, be said that production depends upon distribution. Similarly, distribution in its turn depends upon production, e.g., the average produce per acre in India is 14 maunds, whereas in the United Kingdom it is 35 maunds, and naturally the income of an Indian farmer is less than that of an English farmer.

**(4) Consumption and Distribution:—**

These two are also closely related. Our consumption depends upon the distribution of wealth—a labourer who gets Rs 5/- a day as his share of income in distribution, can have fewer wants satisfied than one who gets Rs. 10/- a day. Similarly, distribution depends upon consumption, for the more a labourer consumes, the more efficient he is, the greater amount of wealth he produces and the greater share he gets in distribution.

**(5) Exchange and Distribution:—**

Production today is joint. Hence the product of an industrial group is also joint. The members of the group get a certain amount of money income only when this joint product is sold and the amount of money received from the sale is distributed among them. And their share in the income is high or low according as the joint product is sold for a higher or a low price. Naturally exchange affects distribution.

In its turn, distribution also affects exchange. If distribution is favourable to a group of persons, i.e., if their income is more, their demand for commodities will rise, and this will affect exchange.

In fact, exchange and distribution go together. Both are governed by the laws of supply and demand. In the one case commodities are exchanged, in the other case services are exchanged. The problems of distribution—e. g., how rent, interest, wages, etc., are determined—are only special cases of the problem of exchange. Distribution is, indeed, by some writers treated as a department or branch of exchange.

Thus consumption, production, exchange and distribution are all closely inter-related and each acts and re-acts upon the others. There are no gaps between production, exchange, and distribution of wealth, in real life,—they go on together—and the final goal in all cases is consumption.

Again, all these departments are related to Public Finance, or Taxation. The activities of the state and the way in which it raises its revenue or spends its taxes, exercise a great influence on the consumption, production, exchange, and distribution of wealth in the country. For example, if the state levies a heavy duty on intoxicants and drinks, their consumption must fall off, and if it prohibits the sale of a certain commodity, its production must fall off. Similarly, if it levies a heavy duty on foreign goods, the home industries must expand, and if it levies heavy taxes on the rich, lowering their incomes and paying the proceeds of the taxes



**(3) Production and Distribution:—**

Production depends upon consumption, and consumption, in its turn, depends upon the income that people get in distribution, e.g., if their income is high, they will have a high standard of life and better efficiency and there will be greater production, while if their income is low, they will have a low standard of life and low efficiency, and there will be less of production. It can, therefore, be said that production depends upon distribution. Similarly, distribution in its turn depends upon production, e.g., the average produce per acre in India is 14 maunds, whereas in the United Kingdom it is 35 maunds, and naturally the income of an Indian farmer is less than that of an English farmer.

**(4) Consumption and Distribution:—**

These two are also closely related. Our consumption depends upon the distribution of wealth—a labourer who gets Rs. 5/- a day as his share of income in distribution, can have fewer wants satisfied than one who gets Rs. 10/- a day. Similarly, distribution depends upon consumption, for the more a labourer consumes, the more efficient he is, the greater amount of wealth he produces and the greater share he gets in distribution.

**(5) Exchange and Distribution:—**

Production today is joint. Hence the product of an industrial group is also joint. The members of the group get a certain amount of money income only when this joint product is sold and the amount of money received from the sale is distributed among them. And their share in the income is high or low according as the joint product is sold for a higher or a low price. Naturally exchange affects distribution.

in its turn, distribution also affects exchange. If distribution is favourable to a group of persons, i.e., their income is more, their demand for commodities will rise, and this will affect exchange.

In fact, exchange and distribution go together. Both are governed by the laws of supply and demand. In the one case commodities are exchanged, in the other case services are exchanged. The problems of distribution—e. g., how rent, interest, wages, etc., are determined—are only special cases of the problem of exchange. Distribution is, indeed, by some writers treated as a department or branch of exchange.

Thus consumption, production, exchange and distribution are all closely inter-related and each affects and reacts upon the others. There are no gaps between production, exchange, and distribution of wealth, in real life,—they go on together—and the final goal in all cases is consumption.

Again, all these departments are related to Public Finance, or Taxation. The activities of the state and the way in which it raises its revenue or spends its taxes, exercise a great influence on the consumption, production, exchange, and distribution of wealth in the country. For example, if the state levies a heavy duty on intoxicants and drinks, their consumption must fall off, and if it prohibits the sale of a certain commodity, its production must fall off. Similarly, if it levies a heavy duty on foreign goods, the home industries must expand, and if it levies heavy taxes on the rich, lowering their incomes and paying the proceeds of the taxes

to the poor, it must result in a better distribution of wealth. On the other side, the amount of taxes realised depends upon consumption, production, exchange, and distribution of wealth in the country. The greater the production, the higher the income in distribution, the better the consumption and exchange, and the greater the revenue of the state.

### QUESTION

What are the chief divisions into which the subject-matter of Economics is usually divided by writers? Discuss the relation between the different divisions.

---

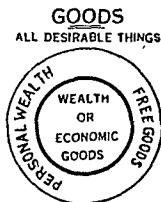
## CHAPTER 4

### THE MEANING OF WEALTH

In a loose sense, wealth consists of all those things that satisfy wants directly or indirectly, and are desired by man. That is to say, it consists of things that have "utility"—the power which an article possesses, of satisfying some human want or desire, e.g., articles of food, clothes, houses, books, tables, ornaments, water, air, sunshine, beauty, skill, service of mother to the child or of wife to the husband, etc., etc.

But all these things are not wealth in Economics. According to economists, wealth (or economic goods, for "economic goods" is another name for wealth in Economics,) consists of those things which not only possess "utility" or desirability, but the additional quality of being scarce and exchangeable. Thus those things that are free and abundant like air, water, sun-shine and rain, are not included in the definition of wealth. Nor are those things included that are not transferable or exchangeable; e.g., health, strength, business ability, industrial skill, intelligence, etc., etc. According to the economists the former are known as "free goods" and the latter as "personal wealth" only. Thus "wealth"

is a smaller circle forming part of a wider one of "goods":—



The bigger circle represents "*goods*" or all desirable things in this world. If from this we take out (i) the "*Free Goods*"—the things that are free and abundant—and (ii) the "*Personal wealth*", e.g., ability, skill, etc., that are not transferable, what is left behind will be *Economic Goods*, or *wealth*, as represented by the smaller circle.

This will be clear from the following definitions:—

**Wealth or Economic Goods:**—Wealth consists of commodities and services that possess the following attributes :

1. *Utility*—that is, the commodity must possess the power of satisfying some human want. In other words, it must have some value-in-use, e.g., the Falls of Niagra were not wealth before their use was known to man; but they are now considered as wealth, because they are known to have utility.

2. *Scarcity*—that is, the commodity must not be free and abundant, like air and water, but must be limited in quantity. Air above the ground is free and abundant and is not wealth. Air in an underground

railway station, or in a diving bell, or in a submarine, is scarce, and is, therefore, wealth. Sand is not wealth on the seashore or in the deserts, but it is wealth at other places.

3. *Transferability*—that is, the commodity must be capable of having its ownership transferred. The skill of an engineer, the strength of a workman, the trained voice of a singer, the nimble fingers of a lace-maker cannot be transferred to other persons, and, therefore, are not considered as wealth; but patents, copyrights, and goodwill of business can be transferred and are wealth. Land is transferable in this sense; but air is not, and hence the former come, under the category of wealth, while the latter does not.

*“Wealth comprises articles, commodities or ‘goods’ which are useful to man (utility), which are limited in quantity (scarcity), and which are transferable from one owner to another (transferability).”*

**Free Goods:** Free goods are those that are freely given by nature without the labour of man. They are given by nature in abundance. No one is willing to pay a price for them and they are neither transferable nor marketable.

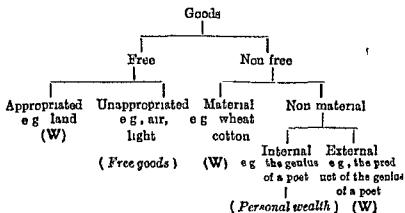
There are, however, some free goods which have already been appropriated by man, and they are considered as wealth, because they are no more abundant and they can be sold and transferred, e.g., land in a settled country. However, land in a new country is abundant and is still considered a free good, like air, sunshine, etc.

**Personal wealth:** Personal qualities such as health, strength, beauty, skill, etc., cannot be

ferred to other persons, and therefore, are not considered as wealth, but because they help to make people efficient, and enable them to acquire wealth, they are known as personal wealth e.g., the skill of a surgeon is his personal wealth. It brings him income, but it cannot be transferred or sold in the market.

When a musician gives a few songs in exchange for a few rupees, or when a professor delivers lectures in the college and is paid for this service, it may seem as if the skill of the musician and the ability of the professor are transferred or are transferable. But there is no transfer as a matter of fact. The skill of the musician and the ability of the professor both remain intact, it is only their services that are transferred. So their skill and ability are not wealth, though a book of songs and the lecture notes of a professor are wealth.

In this connection, the following chart will be found to be very instructive —



We must, however, note that there are certain things which may be wealth under one set of

circumstances and may not be wealth under another set of circumstances:—

(i) Wealth to some, but not to others—a piano is not wealth to a savage (though it becomes wealth as soon as it can be exchanged for something which he wants); but it is wealth to a lady who wants to play on it.

(ii) Wealth at one time, not at another—ice is wealth in summer, not in winter (except for a sick man).

(iii) Wealth at one place, not at another—sand is wealth but not on the seashore, or in the desert. Ice is wealth, but not on the top of the Himalayas.

(iv) Wealth in one form, not in another. Songs are not wealth, but gramophone records are wealth, Lectures of a professor when printed become wealth, too. And so with a book of songs.

*Note:*—RUSKIN objected to the definition of wealth given by economists, and maintained that the production of wealth did not mean anything if it created an injurious effect on the body or the mind of the producer or led to the destruction of his soul. He says :

*“There is no wealth but life. Life, including all powers of love, of joy and of admiration. That country is the richest which nourishes the greatest number of noble and happy human beings.”*

None will disagree with this definition in a true and wide sense, for such things as love, joy, admiration and health are of the greatest utility to men. But as these things cannot be measured by the economist in terms of money and as they are per-



sonal and non-transferable, they are not recognised by him as wealth. Economics, as a science, considers only those things that are measurable in terms of money and can be sold or transferred. To study the effect of all factors upon human happiness would be a hopeless task indeed.

### **Classes of Wealth:—**

#### **(1) Individual Wealth or Private Wealth:**

Wealth of an individual consists of all economic goods which he possesses. This will increase by all things which others owe him and decrease by all things which he owes to others. The wealth of a student, for example, includes his books, clothes, furniture, stationery, his scholarship, and money in his pocket, safe or bank money due to him *minus* his debts or money payable by him to others.

*Note*—Individual wealth may also include his share of the common wealth, such as civil and military security, right to a free education, etc.

#### **(2) Social Wealth or Collective Wealth :**

It consists of goods that are not owned by private persons but by the public collectively. It includes schools, hospitals, parks, playgrounds, libraries, roads, bridges, museums, etc., etc.,

*Note :* Goods included in social wealth are free to the public, but are not necessarily the free gifts of nature. They form a part of economic wealth.

#### **(3) National Wealth :**

This includes :—

- (i) total individual wealth of the nation, i.e., the wealth of all the people comprising the nation.

(ii) total collective or social wealth of the nation, e.g., municipalities, district boards, railways, canals, etc.,

(iii) free goods and natural advantages e.g., rivers and mountains of India, climate and scenery of Switzerland and Kashmir, harbours of England, and the damp atmosphere of Lancashire suitable for cotton mills.

(iv) personal wealth and characteristics of the nation e.g., the Japanese are more energetic than the Indians.

(v) business connections and trade reputations.

Amount of debts owed by the country must be deducted from the national wealth and the amount of debts due to the country must be added to it, e.g., if the total national wealth of India is 5,500 crores and the total national debts of India 1,000 crores, the net national wealth will be considered to be Rs. 4,500 crores.

#### **(4) Cosmopolitan or International wealth :**

It is the wealth of the whole world or of all nations. The Indian Ocean is used for shipping by all the nations of the world free of charge. It is a form of international or cosmopolitan wealth. Similarly scientific knowledge and scientific invention, that are now known throughout the world, and the works of Shakespeare and Kalidass are included in cosmopolitan wealth.

## QUESTIONS

- 1 State carefully what you mean by economic goods and 'free goods' 'social wealth' and 'national wealth'
  - 2 Define wealth. Discuss whether or not the following come under your definition —  
(a) fresh air, (b) good health (c) a picture which nobody appreciates (d) the copyright of a book (e) intoxicating liquors (f) the dexterity of a mechanic, (g) the services of a doctor who fails to cure the patient
  - 3 There is no wealth but life. Life includes all its powers of love, of joy and of admiration.' RUSKIN  
Do you agree with this definition of wealth?
-

## CHAPTER 5

### DEVELOPMENT OF ECONOMIC LIFE

To understand the present economic system, it is necessary to consider the various stages of evolution through which society has passed.

I. The economic life of the people has developed through the following stages:—

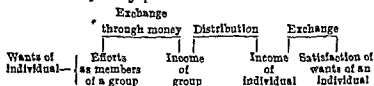
**First Stage: *Direct Effort.***—At first wants were few and were satisfied by direct effort, that is to say, everyone satisfied his needs by his own unaided effort or exertion, e.g., the savage wanted food, he killed animals and ate them up. He made only a direct effort. There was no exchange, no division of labour, and no distribution. This was the stage of Direct Effort.

Wants——>Efforts——>Satisfaction.

**Second Stage: *Indirect Effort or Barter.***—As population increased, wants became a little more diversified and interdependence began. Suppose some one fell ill and could not go out for hunting. He would sit at his home and make tools, which he would exchange for meat with some other savage. Gradually he might give up hunting altogether and might find it more profitable to do some other work and get fish or flesh in exchange for his service or product. In this way one set of producers began to depend upon another, and in this stage, we had (i) indirect effort (ii) division of labour into trades and (iii) exchange of goods for goods (Barter). There was, however, no money and no problem of distribution as yet.

Wants—>Efforts—>Exchange—>Satisfaction

**Third Stage: Indirect Efforts.** *Barter and Distribution*—'This stage came in when work began to be done not by one man alone; but by a combined effort of several persons, e.g., one man ploughed the farm, another threw the seed in the ground, the third levelled the ground, the fourth drew water from the well, etc., etc. Thus the produce on the farm began to be divided among the landlord, the tenant, and labourers, who co-operated in the work; and in this stage we had (i) indirect effort (ii) co-operation of labour and division of labour (iii) exchange of goods for goods (Barter) and (iv) distribution of the produce among those who jointly produced it.



**Fourth Stage: Indirect complex effort.** *Introduction of money. Production for the world market.*—Another advance was made when money took the place of barter and purchase and sale, or exchange of goods and services in money, were introduced. In this stage, which is the stage at the present time, goods began to be produced by combined efforts of many groups of producers, viz., (i) producers of raw materials (ii) transporters of raw materials (iii) manufacturers who carry the goods through various stages of production (iv) suppliers of tools and machines (v) bankers (vi) merchants (vii) advertising agents, etc., etc., and each group of producers received a joint income which was to be distributed among members of that group. Let us take an example of today. Cotton is grown by the farmers.

It is transported by roads and railways. It is turned into yarn in factories where many persons work, and is again woven into cloth, which is carried over long distances by merchants and banks. There is effort by a number of groups, exchange and distribution play a prominent part, and the use of money has been introduced.

Want——>Efforts——>Exchange——>

Distribution——>Exchange——>Satisfaction

II. Another way of classifying the stages in the economic life of the people is to describe the various stages in economic history through which society has passed in coming to its present position. These stages are :—

### (1) The Hunting and Fishing Stage:—

Primitive man was very much like the wild beasts. He went about in search of food and took what he could find. He lived by hunting and fishing, or on wild fruits, and used the skins of animals or barks of trees for clothing. He had "little thought of the morrow". Thus in this stage, there was no private property, no saving, no capital, no exchange, no distribution, no division of labour or trade, no fixed abode, and a thin population.

### (2) The Pastoral Stage:—

As a result of the constant hunting and fishing, the free store of animals and fish in a locality was likely to be exhausted. Existence became more difficult until man discovered that he could benefit more by taming animals. Animals became his chief wealth and life became more peaceful and secure, though it was a wandering life, for men had

to wander in search of pasture-lands for their cattle. Thus even in this stage, there was no fixed abode, no trade, no markets, no division of labour, no exchange and no distribution, and sheep and cattle the only capital. The population was more dense than in the hunting and fishing stage, but not so dense as in the later stages, for after all people had to lead a wandering life in search of "fresh woods and pastures new".

### (3). The Agricultural Stage :—

A further advance was made somewhere near the 10th and 11th centuries, when man learnt to harness an ox or a horse for cultivation and along with keeping of animals, crops were grown and harvested. Population began to grow, people began to live in permanent houses private ownership of land appeared, and simple division of labour came into existence. People living in the villages produced all the things necessary to satisfy their wants and were self-sufficient.

The agricultural stage lasted for centuries among many people in European countries. Then the movement for the town began. In India this stage has lasted till modern times, but we can see how it has been gradually modified to-day.

### (4) The Handicraft or the Artisan Stage :—

*This stage of handicraft and agriculture covers the greater part of known history. It is difficult to say how this began. Probably weapons were the first manufactures, and the makers of arrows the first artisans. But as division of labour increased, crude machines were invented and markets developed.*

Towns sprang up, the neighbouring villages learnt to sell their produce in the town and to get cloth, utensils, spices, etc., in exchange. The artisans and handicraftsmen began to find a large market for their produce and the villagers had a wide market for their wheat, pulses, ghee, etc. (This was yet market production on a small scale—known as the Domestic System of Industry. The artisan yet employed only a small quantity of land, labour and capital.)

### **(5) The Industrial or the Factory Stage or the Capitalistic Stage:—**

This is the stage in which we are living. It dates from 1760—the time of the Industrial Revolution in England, when James Watts' steam engine, Kay's shuttle, Hargreave's spinning-jenny, Crompton's mule, Cartright's power loom, etc. were invented. There has come an "age of power" and we have passed to a period of large-scale production by mills and factories where thousands of people work under one roof, and a period of extreme specialisation in agriculture as well as in manufacture. Competition, use of machinery and power, large-scale production, localisation of industry, extension of markets, and development of banking and credit are some of the characteristics of this stage.

*Note :* It should not be thought, however, that these five stages, followed each other mechanically in the order mentioned above, or that all the features of the earlier stage necessarily died out when man entered in the new stage. The development has been very gradual and its speed has varied very greatly from place to place, so that at any



given moment various stages can be seen side by side and the process of change even can be marked.

This is true about India to-day. We see that there are some Bhils who supply themselves with their necessities of life in a very crude fashion by appropriating directly the yield of nature. They are in the Hunting and Fishing Stage. There are some who roam about the country in search of pasture-lands, they have no fixed abode, they are in the Pastoral Stage. There are also artisans who produce things for the local market—Artisan Stage, and big factories which produce goods in large quantities and for wide markets—Industrial Stage.

### QUESTIONS

1. Show how economic life is growing from simple to complex as individual efforts are being substituted by collective efforts in production.

2. Trace the development of economic life through the various stages from the earliest to the modern times, giving briefly the characteristics of each stage of development.

---

CONSUMPTION \*

## CHAPTER 6

### WHAT IS CONSUMPTION ?

**Meaning of Consumption.**—We are said to consume when we use things for the purpose of satisfying our wants, e.g., we purchase sweets and eat them, we purchase clothes and put them on, we purchase books and read them, we purchase coal and use it for cooking food or for giving us warmth in the winter season. These are examples of *direct* satisfaction of wants. We may also buy coal to run a machine or we may buy a machine itself in order to produce a thing which satisfies our wants directly, and these are examples of *indirect* satisfaction of wants.

Some economists think that consumption is the application of wealth to the satisfaction of wants, whether direct or indirect, and, according to them, both the types of consumption mentioned above are included in the definition of consumption. But other economists make a distinction between the two types and call the former type of consumption (e.g., consumption of sweets, clothes, and books, and of coal for cooking our food or giving us warmth) as *direct consumption* or *final consumption*, and the latter type (e.g., the consumption of coal for running a machine, or of machinery for producing a thing that satisfies a want directly) as *indirect consumption* or *productive consumption*. Thus according to them not all uses of things constitute acts of consumption. When we use a thing for the immediate purpose of satisfying our wants we are said to consume, e.g.,

when we pluck the fruit from an orchard and eat it we are said to be consuming. If, on the other hand, we do not eat the fruit but try to make it into jam we would not be consuming but only producing, the ultimate object being, of course, the consumption of jam

Such a distinction, however, is not of much importance, nor can a line of distinction be definitely marked. For instance, take food. We take food in order that we may be able to keep our bodies, and thus it is for final consumption, but we do not eat food only to live but also to become efficient workers and better producers of wealth, and here it is productive consumption. Again, a commodity may serve both the purposes, it may be final consumption for one person and productive consumption for another person. Therefore, consumption may be defined in a broad way as the satisfaction of human wants, in whatever form they may arise, but at the same time it should be remembered that *consumption proper in Economics means only the application of wealth to the direct satisfaction of wants*, productive consumption or indirect satisfaction being left for consideration in another branch of the science, namely, Production.

One more point deserves attention in this connection. "What is consumed in Economics is not matter but utilities. "Matter is indestructible", and man cannot destroy it. He only consumes the utility of the thing by using it, e.g., when a person takes food, the food matter appears to have been but actually it is not so. The food has only changed into so much of energy and

blood supplied to the body *plus* the waste matter thrown out by the body after digesting the essentials of food taken, etc., etc. An ordinary man may think that we have destroyed food, but we must know that food has only changed its form, and as students of Economics we must only say that we have destroyed not food but the utility of food. Similarly, when we use a coat or an umbrella or a chair for some time and then discard it, we can only say that we have taken the utility out of it. Again, the act of consumption applies to services also, e.g., if a lawyer engages a typist on Rs. 40/- per mensem, or a householder engages a maid-servant on Rs. 10/- per mensem, they are consuming the services of the typist and the maid-servant respectively, although there is no destruction of matter.

*Note I.*—Literally consumption means destruction, but **destruction is only an accidental feature of the act of consumption—it is not incidental in all cases.** Thus when food is eaten or when a cake of soap is used, there is undoubtedly destruction, but when a chair, table or house, a book or a picture or a watch, is used the destruction can at the most be said to be diffused over a long time, and when the services of lawyers, doctors, teachers, actors, singers etc., are utilised, there is no destruction altogether. We pay these people for their services as we pay for commodities. We derive advantage out of their services. But we leave them as we find them. We do not, by our utilisation of their services, cause any wear or tear in them. As a matter of fact, in some cases the object becomes

more useful as its consumption proceeds, e.g., a new ear becomes tuned after running a thousand miles, a new fountain-pen nib becomes set after it has been used for some time, a harmonium becomes melodious to hear after a few months' use, a pair of shoes fits better after some days, and a teacher becomes more efficient, the more he teaches, etc., etc. On the other hand, destruction also does not necessarily mean consumption, otherwise it would follow that an earthquake or a big fire which destroyed all the things would be an act of consumption. Thus, the only thing which goes to make an act of consumption is the satisfaction which is experienced when using a thing or making use of some service.

### Importance of Consumption :—

The study of consumption is a very important part of the study of Economics. Consumption is both the beginning and the end of Economics. It is its beginning because the desire to consume is the motive of all economic activity—if man never consumed there would not have been any economic activity. It is its end because when the effort has been made, when wealth has been produced, that wealth has no other function or purpose than to be applied directly or indirectly to the satisfaction of human wants—satisfaction is, indeed, the end of all human activity. Consumption is the dynamic force upon which depends the entire science or structure of Economics. Without wants there would be no wealth, and no science of Economics.

1. Consumption      (*beginning*)  
     is  
     the cause  
     of
2. Production  
     which  
     leads to  
     division of  
     labour, etc.,  
     and  
     results in
3. Exchange  
     which  
     gives rise  
     to the problem  
     of
4. Distribution  
     which  
     brings in  
     income that  
     is again used  
     for
5. Consumption      (*end*)

No doubt, earlier economists did not pay much attention to the theory of consumption. But the tendency of modern economic theory is to emphasize the importance of the study of this subject; and, with the advance of thought, consumption as a branch of Economics has assumed a very great importance. People have begun to realise that, as the aim of Economics is not merely the improvement of wealth but the improvement of the welfare of man, it is essential to study the way, in which

more useful as its consumption proceeds, e.g., a new ear becomes tuned after running a thousand miles, a new fountain-pen nib becomes set after it has been used for some time, a harmonium becomes melodious to hear after a few months' use, a pair of shoes fits better after some days, and a teacher becomes more efficient, the more he teaches, etc., etc. On the other hand, destruction also does not necessarily mean consumption, otherwise it would follow that an earthquake or a big fire which destroyed all the things would be an act of consumption. Thus, the only thing which goes to make an act of consumption is the satisfaction which is experienced when using a thing or making use of some service

### Importance of Consumption —

The study of consumption is a very important part of the study of Economics. Consumption is both the beginning and the end of Economics. It is its beginning because the desire to consume is the motive of all economic activity—if man never consumed there would not have been any economic activity. It is its end because when the effort has been made, when wealth has been produced, that wealth has no other function or purpose than to be applied directly or indirectly to the satisfaction of human wants—satisfaction is, indeed, the end of all human activity. Consumption is the dynamic force upon which depends the entire science or structure of Economics. Without wants there could be no wealth, and no science of Economics.



1. Consumption      (*beginning*)  
     is  
     the cause  
     of
2. Production  
     which  
     leads to  
     division of  
     labour, etc.,  
     and  
     results in
3. Exchange  
     which  
     gives rise  
     to the problem  
     of
4. Distribution  
     which  
     brings in  
     income that  
     is again used  
     for
5. Consumption      (*end*)

No doubt, earlier, economists did not pay much attention to the theory of consumption. But the tendency of modern economic theory is to emphasize the importance of the study of this subject; and, with the advance of thought, consumption as a branch of Economics has assumed a very great importance. People have begun to realise that, as the aim of Economics is not merely the improvement of wealth but the improvement of the welfare of man, it is essential to study the way, in which

consumption takes place. In fact, wants are the 'motorforce' of all economic activities, and it becomes essential for the economist to study wants in all their phases. In the absence of a wise expenditure of income the progress of a nation is sure to be retarded.

Not only this. The study of consumption is very important to the businessman and the statesman also. By its study the businessman can avoid over-production, and the statesman can find out means by which the welfare of the people can be increased. For example, he can watch the conditions of the working class people and poor people in the country, and can find out means by which their lot may be improved, say by taxing the consumption of the rich people or by regulating it in other ways. He can even take up such measures as 'prohibition'.

### QUESTIONS

1. What is the purpose of economic activities ?
  2. Carefully explain what you understand by the term consumption and give examples of the different types of consumption.
  3. What is meant by consumption ? Why is it said to be both the beginning and the end of Economics ?
  4. Are the following acts of consumption —
    - (a) a boy flying a kite
    - (b) a person looking at a picture
    - (c) a student playing cricket
    - (d) a traveller painting a landscape
    - (e) a gentleman polishing his shoes ?
-

**Necessaries:—**These are of three kinds:—

(a) *Necessaries for existence or for life.* These consist of goods necessary to keep body and soul together. They include a reasonable amount of plain, wholesome food, decent clothing, and healthy home surroundings.

(b) *Necessaries for efficiency.* These consist of goods necessary for keeping up efficiency. They include considerably more food, a certain amount of clothing and furniture, a healthy house and provision for health and education. Unfortunately not more than ten percent of the population in India can afford to have these.

(c) *Conventional necessities.* These are necessities which we do not require for sustaining our life or our efficiency, but which we are forced to have *due to the force of custom, habit and public opinion*, e. g., marriage expenses in a Hindu family, lighting expenses on Devali, smoking, drinking and offering *pan*. To satisfy this group of wants men are not only often forced to sacrifice their necessities for efficiency but on many occasions to stint their absolute necessities of life. For example, a clerk may have to go without food in the evening to have the supply of shoes, coats, and shirts, so that he may not be humiliated in the eyes of more fortunate fellows in society, or a farmer may have to go without decent food and clothing to save money for the purchase of an ornament for the occasion of his daughter's second marriage.

**Comforts:—**These are goods required for a happier and better life. They add to pleasure as

well as efficiency. They imply such things as better food, clothing, and housing, provision for recreation and amusement, and the satisfaction of intellectual needs.

**Luxuries:**—These are defined as the satisfaction of superfluous wants. They add to pleasure but do not increase efficiency—sometimes they decrease efficiency, e.g. in the case of drinking. They are meant for greater refinement of life and for indulgence in expensive habits and amusements.

Now the distinction between these classes of wants is very difficult. It is impossible to lay down any hard and fast rule as to which are Necessaries, Comforts and Luxuries. The same thing may be a necessary to one person, a comfort to another person, and a luxury to a still another person, e.g. a motorcar may be a luxury to a clerk or a rural landlord, comfort to a university professor and a necessary to a busy doctor, a broker, or an engineer. Even to the doctor it may cease to be a necessary, if the doctor in course of time develops a clinic and chooses to attend patients only in the clinic, or if he moves to a small village that has very narrow and crowded lanes. It may change into a comfort in the former case and into a pure luxury in the latter. Similarly, a shirt may be a necessary for even a poor man in England, but not so in India. A watch may have been a luxury for kings only at one time, but today it is a necessary even for a watchman.

Then a unit of the same article may be considered as a necessary, and another a comfort or a luxury, e.g., a portion of the wardrobe of a rich man would

be a necessary, another portion a comfort, and the third portion a luxury. In fact, "the category into which a particular article can be classified—necessary, comfort, or luxury—is determined by four variable items, namely, the individual consumer, the particular unit of the article, the time, and the place." (DR. BASU). And we cannot decide whether a certain want is a necessary, comfort or luxury, without paying attention to all these factors.

However, there is the test of efficiency by Dr. BASU, which says :—

*"Necessaries are those wants the satisfaction of which increases efficiency, and non-satisfaction diminishes efficiency; Comforts are those whose satisfaction does not increase efficiency but whose non-satisfaction diminishes it (e. g., if tea is taken there will be no increase in efficiency, but if it is not taken there may be a decrease in efficiency); while Luxuries are those whose satisfaction does not increase and non-satisfaction does not diminish efficiency (except when a luxury is such that indulgence in it impairs the efficiency of an individual, e. g., use of wine, or excessive use of tobacco, etc.)"*

	Consumption of the Unit leads to	Deprivation of the Unit leads to
Necessaries	Increase in efficiency	Decrease in efficiency
Comforts	No increase in efficiency	Decrease in efficiency e. g. tea and coffee
Luxuries	No increase in efficiency	No decrease in efficiency

But even this test does not take us very far And it is impossible to lay down any hard and fast rule as to the order in which people satisfy their wants, e g, one may prefer smoking to satisfying hunger, and may go without food one evening just to have a cigarette

### Should we have many or few wants ?

Some people advocate that the fewer wants we have the happier we are. But this is not what the economists think. According to them civilisation consists in wanting many things and in knowing how to get them For, the greater the number of wants, the greater is the effort made to have their satisfaction, and, therefore, the greater is the production, the greater the wealth and income, and the greater the happiness, and prosperity

### In this connection we come across the idea of Standard of Living

The term "standard of living" means the amount of necessities comforts and luxuries which an individual or a group of persons is accustomed to use—in other words, without which he cannot do, and to have which he makes all efforts that he can. An Englishman has a high standard of living, and makes all possible efforts to provide himself not only with necessities but with comforts and luxuries, too. An Indian has a low standard of living, and lives without facilities for education and recreation—without even proper food and clothing, but makes no adequate efforts to improve his position. Similarly, the standard of living in the United States, where one out of every eight persons owns a motor car,

is very high, while the standard of living in India, where at least half the population is under-fed and under-clothed, is very low.

Now the standard of living depends upon two main factors: (a) the income of an individual, and (b) the intelligence with which he uses it. The income of an American is about 20 times, and of an Englishman about 10 times that of an Indian. Naturally the standard of living of the Indians must be low. But one thing that is responsible for this is the wrong use of wealth by the Indians—they spend away on their religious and social customs and ceremonies what they should spend on their food and clothing and education. Besides, they have resigned themselves to their lot, and they have no ambitions. They find comfort in the ideal of “plain living and high thinking,” while the rest of the world is moving on towards materialism.

Evidently, a rise in the standard of living is a great need of our country. We must have more money to spend, and we must know how to spend it well—i. e. not on marriage and other ceremonies but in improving our general conditions of life, without this, neither our health and comfort nor our efficiency and competence can improve; while, on the other hand, if our standard of living rises, our health will improve, our efficiency at production will improve, and a check will be put to the excessive growth of population. A rise in the standard of living is, indeed, the surest index of the welfare and prosperity of a nation.

Recently our standard of living has shown some signs of improvement, particularly as a result of

the present war, and the lot of the farmer and the artisan both has slightly improved. But a great deal more has to be done in this direction. We must go on making efforts to make education more wide spread, we must try our best to increase the incomes of the people through industrialization and mechanisation of agriculture, and we must try every means to raise the standard of living of the masses and provide them a better and more refined life.

### QUESTIONS

1. What is meant by a want in Economics? Distinguish between economic and non economic wants.
  2. What are the chief characteristics of human wants? Is the multiplication of wants desirable?
  3. Classify wants.  
What are the tests you would apply in classifying commodities into necessities, comforts and luxuries? Illustrate from Indian examples.
  4. Moreland says: "It is not likely that the progress of India will lead to a condition in which a larger proportion of the people are completely satisfied than is the case at present." Explain this statement.
  5. Moreland says that the wants of the Indian labourers are determined largely by custom and habit. Name the ordinary wants of the Indian labourers and show which of them are determined by (a) custom (b) habit and (c) reason. Are there any wants in the case of college students that are determined by custom? Give examples.
  6. Define the term standard of living. What are the causes of the low standard of living in India? How would you raise the standard of living in India?
-



## CHAPTER 8

### MEASUREMENT OF WANTS (UTILITY)

**Meaning of Utility**—In ordinary language, utility means usefulness. Air and water, for example, possess utility. But in Economics the word is used in a special sense. To the economist, utility does not signify usefulness, but simply *the capacity of a commodity to satisfy a want*. A thing may be totally useless, or may even be harmful, like brandy or whisky, but so long as it can satisfy the want of some people, so long as people are willing to pay a price to acquire it, it will be said to have utility. "Anything that satisfies a want," says SEAGER "has utility and is a good whether it be the whisky of the trader, or the hymn-book of the missionary." And not only commodities but services also possess utility. The doctor gives us health, the teacher knowledge, the judge justice, the soldier security. Similarly, sweepers, washermen, domestic servants, etc., etc., provide service utilities.

Utility is, however, a relative term. A glass of water in the hands of a thirsty man has utility for him, but it has no utility to a man who has no want to satisfy with it. Similarly, utility differs with time, place, and the stage of civilization. Ancient weapons of war have no utility at present. Nor have the fertile lands in the other worlds, which we cannot reach, any utility for men. And goods which are liked by the people today would lose their utility, if people decide to boycott them tomorrow.

Thus utility, though a quality of things, is not an inherent quality, but a subjective quality arising out of its relation to man's requirements

Now, if we want to measure the intensity of want for a commodity we can do it by finding out the utility of the commodity. But the utility of a commodity cannot also be directly measured. We cannot define utility in physical terms as we can define food in so many calories. We can only compare the utility of one commodity with that of another by comparing the amounts of money a person is willing to spend in order to have these commodities. For example if we find a man in doubt whether to spend a few annas on a cigar, or a cup of tea, or in riding home instead of walking home, we can say that we expect from them equal utilities or if we find a man purchasing a book instead of an umbrella, we can say that the book has a greater utility to him than the umbrella. Similarly, if we find a man paying a higher price for one commodity than for another, we can say that the utility of the former is greater to him than the utility of the latter. Wants are measured in terms of utilities, and utilities are measured in terms of money.

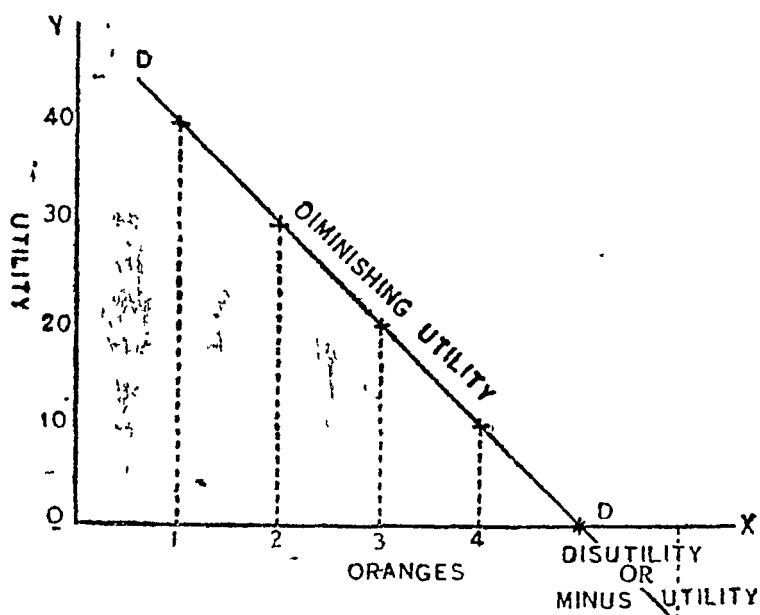
### Law of Diminishing Utility —

A remarkable thing about utility is that the more we have of a thing, the less is the satisfaction or utility derived from it or from the additional amount of it. To a man who is dying of thirst, the first cup of water must give immeasurable pleasure the second will give great pleasure though not so great, the third will give still less pleasure and at

last a stage will be reached when the man will want no more water for the moment. Similarly, if the first orange will give a utility of, say, 40 to a sick man, the second orange will give a utility of 30, the third of 20, and so on, till he will have no utility for the orange, and, if he is forced to take still more of it, the utility will pass into disutility. The following diagram will make it clear:

The first orange gives 40 units of satisfaction.

"	second	"	"	30	"	"
"	third	"	"	20	"	"
"	fourth	"	"	10	"	"
"	fifth	"	"	0	"	"
"	sixth	"	"	-10	"	"



Economists have put this experience in the form of a law known as the *Law of Diminishing Utility* or the *law of Diminishing Marginal Utility* :—

"Every additional unit of a commodity tends to bring to the consumer an amount of utility which is less than what was given by the preceding units".

DR. BASU.

OR

"The additional benefit which a person derives from a given increase in his stock of a thing diminishes, other things being equal, with every increase in the stock that he already has."

MARSHALL.

*Other things being equal, or other things remaining the same*—these words mentioned in the law have, however, a great significance. They include the following, and under these conditions alone the law can hold good :—

( i ) that the units of the commodity consumed are equal in quality. For example, if oranges are being consumed and if a subsequent orange turns out to be a bigger and a sweeter one than the previous ones its utility may increase instead of diminishing. Similarly, if a thirsty man after having drunk two cups of water, resorts to a glass of lemonade with ice, his utility might show an increase, though, according to the law it should surely decrease.

( ii ) that the period of consumption should be continuous. It should not be broken up by intervals. If a man takes food in the morning and then in the evening, he might relish the evening meal more. But it does not mean that the law of diminishing utility is wrong.

( iii ) that the attitude of the consumer towards the commodity is not changed as long as the con-

sumption lasts; e. g., if a man takes "bhang", he becomes a different man under its influence, and may relish his food more and more after taking some. It is said that the more wine a person drinks the greater is his desire to have more of it; its utility, therefore, does not diminish, but increases. But the man is not in his senses. Whatever he does, he does under the influence of wine.

(iv) that, if long periods are involved in consumption, the consumer's income, tastes, fashion, and habits remain unchanged, during the whole period of consumption. For example, if a man wins the Derby Lottery he will have more and more of rooms and furniture and cars, though he had little utility for them previously, being unable to spend any money. Similarly, if "khaddar" comes into fashion its utility may for a time increase instead of diminishing, and the same thing may happen in the case of tea if a person begins to take it in place of lemonade to quench his thirst.

### Exceptions to the Law of Diminishing Utility:—

Besides the above cases, there are certain exceptional cases in which it seems that the utility of additional units of a commodity increases instead of decreasing. They are discussed below. But a careful examination of these will make it clear that they are **only apparent and not real exceptions** to the law—that though at first the additional utility may increase in the above cases, it ultimately decreases, and the law is found to be true.

(i) It is sometimes said that when we begin to consume anything the utility that we derive from its additional units increases instead of diminishing;

for example, a man who is preparing tea is offered coal in ounces, the first ounce will be of no use to him, and the utility of a second ounce will exceed that of the first. The units are too small and there is increasing utility for some time. Similarly, if a few drops of "sherbet" were to be offered to a thirsty man, they would intensify rather than diminish his thirst, and the utility of those drops of "sherbet" would for a time increase, instead of diminishing. Or, if we take the example of a "rashgulla", and if it is offered in units of half a "rashgulla", the utility of the second "rashgulla" will be greater than that of the first, for the "rashgulla" cannot be relished fully unless it is taken whole.

In the same way, the utility of the second shoe to a man who is already in possession of the first shoe in a pair of shoes, or of the second bullock or horse to a farmer who is in possession of one and wants to have another to form a pair, will be greater than that of the first. In these cases the law does not operate because the amount of the commodity taken into consideration is not a unit but only a part of the unit. We do not purchase coal in ounces nor shoes in singles, but in seers and pairs respectively. Nor do we purchase "rashgullas" in halves.

(ii) It is also said that a drunkard gets increasing utility from every additional peg of wine or dose of "bhang". But the economist does not consider the actions of such men. Besides, even in their cases, sooner or later, a point is reached when the law begins to operate.

A similar case is that of a second or third reading of a good piece of poetry, or the hearing of a good music a second or third time—second or third occasion may afford greater utility than the first. But here again a stage comes when further reading or hearing will lead to diminishing utility.

(iii) Another exception is that of curios and rare objects. A man who takes delight in collecting postage stamps, or photographs, etc, derives greater satisfaction from additional units. But even here a stage will arrive when further addition will yield diminishing utility.

(iv) Similarly, love of display in buildings, clothes, jewels, cars, etc., want of power, a miser's love for money, and an artist's desire for self-expression are never satisfied, and, therefore, are said to be exceptions to the law. But these are facts and sentiments with which the economists are not very much concerned. These persons are not normal. Besides, even in their case a stage is conceivable when additional units will yield diminishing utility, however far removed that stage may be.

(v) Then certain services become more useful as a larger number of people begin to use them. The value of the telephone or the radio to any user is said to increase when more people are linked on, or more stations are connected. But in this case there has not been any increase in telephonic connection so far as one and the same individual is concerned. Others have taken telephonic connections, not he. If he takes more telephonic connections than one himself, the utility of the second will certainly be less than that of the first. Besides,

if the number of connections increases very considerably the service becomes too bulky for a single exchange, and additional exchanges will have to be worked, which will mean faintness of the voice heard at the other end.

(vi) It is also said that the desire for money is never satisfied, and its utility never decreases. But the utility of money is also subject to the law, because we find that the utility of a rupee is greater to a poor man than to a rich man—the former will grudge paying a pice in charity while the latter may not feel paying even a rupee. Besides this case comes in the first characteristic of wants. Desire for money means desire for all the things in the world—wants as a class, and not a particular want, and, as we have said above, wants as a class can never be satisfied.

### Total Utility and Marginal Utility —

According to the Law of Diminishing Utility, the utility of each additional unit of a commodity goes on diminishing, so that if a person consumes four oranges at a time, the utility of the 2nd orange would be less than that of the 1st, of the 3rd orange less than that of the 2nd, and of the 4th orange less than that of the 3rd. For example, if the utility of the 1st orange is 40, the utility of the 2nd would be 30, the utility of the 3rd would be 20, and the utility of the 4th would be 10.

But this does not mean that the total utility of the oranges also goes on decreasing. The total utility, i. e. the sum total of all the utilities consumed at a time, goes on increasing, although at a diminishing

For example, the total utility of 2 oranges



here is  $40 + 30$ , of 3 oranges  $40 + 30 + 20$ , of 4 oranges  $40 + 30 + 20 + 10$ .

The following table will clear the distinction between total utility and additional utility (or marginal) utility :—

Number of oranges	Utility of the 1st orange	Utility of the 2nd orange	Utility of the 3rd orange	Utility of the 4th orange	Utility of the 5th orange	Utility of the 6th orange	Total Utility	Marginal Utility
1	40						40	40
2	40	30					$40 + 30$	30
3	40	30	20				$40 + 30 + 20$	20
4	40	30	20	10			$40 + 30 + 20 + 10$	10
5	40	30	20	10	0		$40 + 30 + 20 + 10 + 0$	0
6	40	30	20	10	0	-10	$40 + 30 + 20 + 10 + 0 - 10$	-10

Now the question arises, what is meant exactly by marginal utility.

It is a matter of common experience that if a man has to purchase a commodity, he has in mind, on the one hand, the utility that he gets from it and, on the other, the amount of money that he is to sacrifice in order to get that commodity or that particular unit of it. He stops the purchase when he thinks that the additional utility of the last unit purchased just balances the utility of the money with which he purchases the particular unit, that is to say, that if he purchases any more unit, the

utility of the commodity to him will be less than the utility of the money that he will have to part with in order to have it, and nobody is such a fool that he will pay for a commodity more than the satisfaction that he gets from it. And marginal utility is the utility of this last unit which he considers just worth his while to buy.

For example, in the above illustration, if the price is 40 pice per orange he will purchase only one orange. He will refuse to purchase the 2nd, or 3rd, or 4th orange, as the satisfaction that he gets from eating them is worth less than 40 pice (one unit of the utility being taken to be equal to one pice here)—the utility of the 2nd orange is 30 of the 3rd 20 of the 4th, 10, and this means that he will have to pay 40 pice for a thing worth 30 pice, or 20 pice or 10 pice which certainly he will not like to do. Here the utility of the 1st orange will be called the marginal utility.

Again, suppose the price is 30 pice per orange. He will now buy two oranges—he will refuse to buy the 3rd and 4th orange because they give a utility worth only 20 and 10 pice, and here the utility of the 2nd orange will be the *marginal utility*. Similarly, if the price is 20 pice per orange he will buy 3 oranges—he will refuse to buy the 4th orange because it gives him a utility of only 10, and the marginal utility will be the utility of the 3rd orange. And only if the price is 10 pice per orange will he buy all the 4 oranges. He will thus buy more and more oranges until the utility of the last orange bought is just equal to the price and the utility of this last orange is known as the *marginal utility*.

We, however, do not say the marginal utility of the 1st orange, 2nd orange, 3rd orange, 4th orange, etc., but the marginal utility of 1 orange, 2 oranges, 3 oranges, and 4 oranges, for all oranges are alike, and marginal utility is the utility which is derived from any one of this stock of 1, 2, 3, or 4.

**\*By margin we understand the position of equilibrium**—a position where the utility derived from the consumption of a certain quantity of an article is approximately equal to the sacrifice which is necessary to obtain that quantity; in other words, a position where we stop consuming and cry out "*Bus, no more of it*" or "*thus far and no further.*" But when the margin is reached it does not necessarily mean that the consumer is fully satisfied at this point, and that he will begin to feel pain if he proceeds any further. It only means that the utility of the commodity to him at that time is less than the

---

**\*The conception of margin in Economics :—**

By *margin* we understand a position of equilibrium. For example, marginal demand is that demand at which the utility derived from the consumption of a certain quantity of an article is approximately equal to the sacrifice which is necessary to obtain the quantity. Says DR. BASU in his book 'Economic Principles for Indian Readers': "The boy who plucks plums to eat them soon reaches a margin at which the utility, or satisfaction of eating an additional quantity of plums is balanced by his efforts to get them. If he goes beyond the point, his effort or utility is greater than the utility which he derives from an additional quantity of plums". Similarly when a man buys oranges he stops at a point where the utility from an additional orange is balanced by the price which he pays for an orange, e. g., if oranges are selling at 2 as. each, and if the utility of the oranges to a person is -/4/- for the 1st orange, -/3/- for the 2nd, -/2/- for the 3rd, -/1/- for the fourth, then the margin will

sacrifice he will have to make, to have it, or the utility of the money that he will have to part with. In fact, marginal utility may be a positive, zero, or negative utility. It is positive when a man has to stop consumption for any reason without being fully satisfied, e.g., a poor man does not take food to the satiety level (except at feasts)—he can take 4 loaves but he takes only 2 on account of poverty or, a fly may spoil the dish, a sad news may take him away, or lack of time may not permit him to eat, e.g. when he is at a railway station and the stoppage of the train in which he travels is short. It is zero when he consumes till his want is fully satisfied, and negative when he goes beyond this point and thus consumes more than what he should have done, either under the influence of liquor or "*Bhang*" or in a spirit of competition as at hostels and colleges at the time of taking dinner or sweets.

be at the 3rd orange and he will buy 3 oranges because the utility which he derives from the 4th orange i.e.  $1/1$  is less than the sacrifice i.e.  $1/2$ . If the price of the orange were  $1/3$  his marginal orange would have been the 2nd orange and if the price were  $1/1$  his marginal orange would have been the 1st orange. We pay for a commodity not according to total utility but according to marginal utility.

In the same way, if a man has to purchase several articles, he will spend in such a way that the marginal utility in each case is the same—if he spends more on one article and less on another the utility which he derives from certain units of his income in the former case would be less than that in the latter.

And the same margin is found in production also. Land is used for one purpose and not for another because the producer in the former case gets more than what he can get in the latter case e.g. land is used for agriculture and not for gardening.

[ **Total utility** goes on increasing so long as the additional utility or marginal utility does not reach zero. But beyond the point of zero even total utility may begin to diminish as the disutility or negative utility increases. Suppose the utility of the first orange is 40, of the 2nd 30, of the 3rd 20, of the 4th 10, of the 5th 0, of the 6th -10, of the 7th -20, of the 8th -30, and so on. Here the total utility when he purchases only one orange is 40, when two oranges 70, when three 90, when four 100, when five 100, when six 90, when seven 80, and we find that the total utility increases upto the 5th orange, and begins to decrease after the 5th orange. *Total utility is the highest when the marginal utility is zero.* ]

---

because its use in the former case is of greater value than its use in the latter case. Similarly, labour is undertaken upto a certain number of hours, and not more, because the labourer stops at that hour where the disutility of labour balances the pay for that hour; and capital is saved till the point where the margin is reached at which the present worth of the utility derived from the interest is equal to the utility derived from its immediate consumption. And the organiser combines land, labour, and capital in such a way that the marginal productivity is the same in all cases.

It is thus clear that in all economic activity, whether it be of consumption or of production, the idea of margin is present at every step, and with every change in the items to be balanced, there comes a change in the position of the margin, too. Such changes are always going on in the economic world, and Economics is nothing but a study of these. [ *Read the definition by ROBBINS given on page 4.* ]

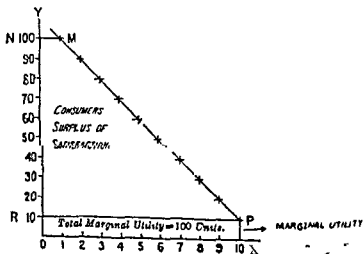
**Consumer's Surplus.—**

We have seen that according to the Law of Diminishing Utility, a consumer does not get equal satisfaction from all the units of the commodity that he buys, although he pays an equal sum for all the units. Suppose the units of a commodity give utility in the following order :—

100, 90, 80, 70, 60, 50, 40, 30, 20, 10,

and suppose he buys 10 units. He will be willing to pay for them the price which corresponds to the utility of the 10th or the marginal unit. (If the price is higher he will not purchase 10 units, but less.)

Thus we see that he will get  $100 + 90 + 80 + 70 + 60 + 50 + 40 + 30 + 20 + 10$ , or 550 units of utility, and will pay for all the units at the rate of 10. i.e.,  $10 \times 10$  or 100 units in all. Thus he will get an excess of satisfaction (  $550 - 100$  ), which is known as the *consumer's surplus of satisfaction*. In the diagram below :



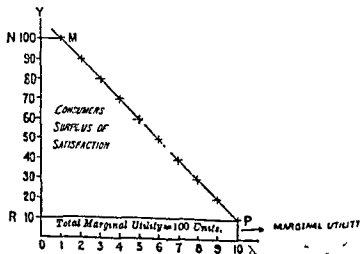
**Consumer's Surplus.—**

We have seen that according to the Law of Diminishing Utility, a consumer does not get equal satisfaction from all the units of the commodity that he buys, although he pays an equal sum for all the units. Suppose the units of a commodity give utility in the following order:—

100, 90, 80, 70, 60, 50, 40, 30, 20, 10,

and suppose he buys 10 units. He will be willing to pay for them the price which corresponds to the utility of the 10th or the marginal unit. (If the price is higher he will not purchase 10 units, but less.)

Thus we see that he will get  $100 + 90 + 80 + 70 + 60 + 50 + 40 + 30 + 20 + 10$ , or 550 units of utility, and will pay for all the units at the rate of 10. i.e.,  $10 \times 10$  or 100 units in all. Thus he will get an excess of satisfaction ( $550 - 100$ ), which is known as the *consumer's surplus of satisfaction*. In the diagram below:



If he takes O X (i.e., 10) oranges, the total utility is equal to the area of OXPMN. As he pays for all the units the same as he pays for the marginal unit, the total paid by him ( $10 \times 10$ ) is equal to the area of OXPR., therefore, R P M N represents the consumer's surplus.

In this way he pays prices much below what he would pay rather than go without the commodities, and consumer's surplus has been defined as *"the surplus of satisfaction which a consumer of a commodity enjoys over and above the cost which he pays for that commodity."* In other words, it is *"the excess of price which a consumer would be willing to pay for that commodity—rather than go without the commodity—over and above the price he actually pays."* For example, if he is prepared to spend Re. 1 on a copy of the newspaper and he actually gets it for 2 as. in the market, then Re. 1 minus 2 as., i. e. 14 as., will be called his consumer's surplus.

Evidently the consumer's surplus derived from some commodities is much greater than from others. It is particularly great in the case of such commodities as salt, matches, postage stamps, newspapers, railway fares, telegraph and telephone rates, etc.

*measures of utility*

—It is, however, very difficult to measure consumer's surplus. It is very difficult to say what a particular person would have been prepared to pay rather than go without any of these things. What would not a thirsty man be prepared to pay for the first glass of water or a hungry man for the first loaf of bread?



But this must not be confused so as to mean that consumer's surplus does not exist, or that the conception of consumer's surplus has got no practical value. It does exist. Every commodity yields at least some consumer's surplus. In fact, the greater the consumer's surplus, the greater is the happiness of a person or a community at any given time and place. And the idea of consumer's surplus is very helpful to the finance minister framing a tax system and to the monopolist fixing up the price of his commodity. The former aims at increasing the consumer's surplus of the people and the latter aims at fixing the prices so as to snatch away all the consumer's surplus from the consumers.\*

**Law of Equi marginal Utility:**—This law is a law of expenditure, and has been deduced from the Law of Diminishing Utility discussed above.

If a man has something which he can put to different uses he will be inclined to distribute

---

\*PROF MARSHALL has pointed out that, though the doctrine is hypothetical to a certain extent it is of great use in estimating the benefits which a person derives from his consumption. Says MARSHALL "If a man pays 1d toll on a bridge which saves him an additional drive that would cost a shilling, we do not say that the penny is worth a shilling, but that the penny together with the advantage offered him by the bridge is worth a shilling for that day. Were the bridge swept away on a day on which he needed it, he would be in at least as bad a position as if he had been deprived of 11d." Again, he says that the conception of consumer's surplus enables us to see how "a man with an income of £ 1,000 per month in London with the amenities of life that London presents enjoys more benefits and advantages than with £ 10,000/- in the wilds of Central Africa without those amenities"

the thing among these different uses in a manner which will give him the maximum or the highest satisfaction out of these uses. If he has some money and is in need of several things he will spend his money in such a way that he may derive the maximum amount of satisfaction from his expenditure. What is the way to do it? He will buy one commodity and discard another. He will buy more of one commodity and less of another. He will stop spending on goods the marginal utility of which should be getting smaller than the utility he could derive by spending on others. He will substitute the more pleasurable for the less pleasurable till the marginal satisfaction of all the goods is equal or almost equal. (In other words, he will spend his money in such a way that each of the commodities will give him the same marginal utility; for it is only then that he can get the maximum satisfaction)

Thus suppose a man has a monthly income of Rs. 100/-. Now he should distribute his income under the different items of food, clothing, house-rent, educational expenses, medical expenses, and amusements so as to cover all the necessary items of expenditure in their due proportion. But if he spends Rs. 50/- on house rent, and Rs. 25/- for amusements, and the remaining Rs. 25/- for food, he cannot derive maximum satisfaction from all the expenses, because Rs. 25/- is too small a sum for food, whereas Rs. 25/- for amusement is rather too much, and Rs. 50/- for house-rent also too much. That is, the utility derived from money spent on amusements or house-rent is less than the utility that could be

derived by spending it on food. If he spent Rs 15/- for house rent, Rs. 50/- for food, and Rs 35/- on other items of expenditure, the marginal utility of money would have been almost equal in each case, and he would have obtained maximum total satisfaction out of his money.

Let us take a more definite example. Suppose a man has Rs. 23 with him. He has to buy food, clothing, shelter, and ornaments. Each unit costs Re. 1. How many units of each commodity would he purchase if the utilities of the different units are as follows:—

Food	Clothing	Shelter	Ornaments
10	8	6	3
9	7	5	2
8	6	4	
7	5	3	
6	4	2	1
5	3		0
4	2		
3		1	
2		1	
	1	0	
	0		
1			
0			

Naturally he would spend the first rupee on food, for it gives him the highest utility of 10, the second also on food, the third either on food or on clothing and so on as mentioned below:

1st rupee on food	2nd rupee on food
3rd " " clothing	4th " " food
5th " " clothing	6th " " food
7th " " shelter	8th " " food

9th	rupee	on	clothing	10th	rupee	on	shelter
11th	"	"	food	12th	"	"	clothing
13th	"	"	food	14th	"	"	clothing
15th	"	"	shelter	16th	"	"	ornaments
17th	"	"	food	18th	"	"	clothing
19th	"	"	shelter	20th	"	"	ornaments
21st	"	"	food	22nd	"	"	clothing
23rd	"	"	shelter.				

Thus he will buy 9 units of food 7 of clothing, 5 of shelter, and 2 of ornaments. At the end, it will be found that the marginal utilities of all the commodities—food, clothing, shelter, and ornaments are equal, i.e., 2 in each case.

Similarly, suppose a man brings 10 oranges from the market. There are three members in his family—himself, wife, and a child. He takes 4 oranges himself, gives 4 to his wife, and 1 to his child. He now finds that if the child takes any more he would vomit; and the wife's desire is satisfied, too; but he himself can take more. Whom should he give the orange that is left? Evidently to himself. But why? Because the marginal utility of the orange to him is greater than the marginal utility of the orange to his wife or child.

Again, if a man has to distribute his income over his present and future needs, he will so distribute his income between spending and saving that he may be able to secure the greatest amount of satisfaction, that is to say, in such a way that money spent, i. e., money applied to present use, has the same marginal utility as money saved for future.

Generally speaking, therefore, if a man has something which can be put to different uses he will be inclined to distribute the thing among those different uses in a manner which will give him the maximum or highest satisfaction out of these uses; in other words, in such a way that he may derive equal marginal utility from all the various different uses.

This is expressed in the form of a law as follows:-

**"In distributing a given income over different items of expenditure the maximum total utility is obtained only when the marginal utility in all cases is the same."**

In other words, if a consumer succeeds in distributing his money in such a way that he gets the maximum satisfaction, then the marginal utility to him of a pennyworth of any good which he buys will equal the marginal utility to him of a pennyworth of any other good that he buys.

*"For the total utility to be a maximum, a given income must be so divided between different articles of consumption as to yield equal marginal satisfaction along each line of expenditure."*

This Law of Equi-marginal Utility is of very great importance in Economics, and applies to all the four departments of the subject. For example, in the field of production also the entrepreneur works on the same principle in determining the relative proportion of land, labour, and capital which he will use in production. He buys his factors of production just as a consumer buys food and clothing and with a view to get the maximum return at a minimum cost, he is always on the look-out to

substitute more profitable for less profitable items of expenses. He tends to employ the factors of production in such proportions that the marginal returns from each may be equal, for here also he obtains the maximum returns when the marginal returns are equal. And so long as this is not the case he goes on substituting one purchase for another. Thus in deciding whether ten more labourers should be engaged, or one thousand rupees, more should be invested as capital on machinery, or some better management and supervision should be obtained by further expenditure on it, he will compare the marginal returns of each separately, and shall try to get equi-marginal returns from his additional outlay on these, for it is only then that he can get the best value for his money. (This is what is known as the **Principle of Substitution in Economics**, or the **Law of Equi-marginal Returns**).

Similarly, the law has an important bearing upon distribution—e. g., it forms the basis of the demand for equal distribution of wealth and income, and upon exchange—e. g., it affects the decision of a purchaser who tends to substitute a cheaper article for a dearer one.

### **Family Budgets:—**

The principle of balanced consumption is reduced to the Family Budget in which one has to consider distribution of expenditure among different articles and over different periods.

*“A complete statement of the income and expenditure of a family during a certain time is called a Family Budget.”*

It is a balance sheet of receipts and expenses of a family and, if properly studied, it will reveal the whole economic life of the family concerned

The budget is generally arranged under the following main heads (there is no hard and fast rule about the heading—these depend upon the purpose of enquiry) —

- 1 Food
- 2 Heat and Light
- 3 House and Shelter
- 4 Clothing and Shoes
- 5 Health and Education
- 6 Entertainments
- 7 Services
- 8 Social and Religious Expenses
- 9 Savings and Investments (or Interest on Debt or Debt Payment)
- 10 Miscellaneous

Family Budgets have often been collected and compared. The first important study of them was made by Dr. ENGEL of Germany in 1857. By a comparative study of these budgets he arrived at certain conclusions with regard to household expenditure, which have been embodied in the form of a law known as Dr. ENGEL's Law of Consumption —

1 The lower the income the greater the percentage spent on food, the greater the income, the lower the percentage spent on food

2 The percentage of expenditure on clothing is approximately the same with higher and lower incomes. The same is the case with expenditure on rent, fuel, and light

3. The percentage outlay on miscellaneous items such as education, health, travelling, etc., increases with an increase in income.

This Law is, however, merely a generalisation from the personal experiences of Dr. ENGEL. More recent investigations indicate that changes in the distribution of expenditure do not always vary in quite this way. It is different for different individuals, different commodities, and different regions. Anyway, Engel's most obvious generalisation that **as income increases, a constantly increasing percentage is spent on health, education, amusement, and other comforts and luxuries** is confirmed; and it has in fact become customary to measure the welfare of a particular income group by determining the amounts available for expenditure on comforts and luxuries. The nation that spends more on these items is considered to have greater material welfare. English people spend more on comforts and luxuries than Indians, and the English people are considered richer than the Indians.

[In India two persons are known for their study of family budgets—MAJOR JACK and PROF. FINDLAY SHIRRAS. The former studied the family budgets of the people living in a Bengal district. He found that the agriculturists living in comfort spent about 58% of their income on food while those who lived in poverty spent 60%. The latter collected the budgets of the working-class families of Bombay. He found that the workers who earned less than Rs. 30 a month spent about 60% of their income on food while the workers who earned about Rs. 80 or 90 per month spent about 53%. Thus the conclu-



sions of both of them confirm Dr. ENGEL's conclusion—i. e. the percentage of income spent on food decreases as income increases.]

### **Purposes served by Family Budgets.—**

*To the householder :—*

(a) A glance at the budget will tell him whether he is spending within his means; if not, where he can bring about a reduction.

(b) By comparing budgets from month to month he can find out where economy is possible and where a little greater expenditure will result in higher efficiency.

(c) Family budgets teach him foresight and thrift, the proper valuation of present and future wants, and the importance of the principle of balance in consumption.

*To the economist :—*

(a) He can have an insight into the real economic well-being of the families whose budgets he studies.

(b) He can find out whether a class of people are consuming the right kind of food, etc., whether the consumption is suited to promote the real well-being of the people, whether their standard of living is high or low and population is pressing or not, whether education and health are being taken care of or liquors are being indulged in to excess, whether savings are adequate and debts are for productive purposes, etc. etc. For example, Indian peasants are very poor and yet on ceremonial occasions they become extravagant and spend

money beyond their resources, e.g., on the birth of a son, the marriage of a daughter, or the death of an old man in the family. They borrow money for these purposes and pay a very high rate of interest. They also spend a little too much on liquor and tobacco. They can be advised by the economist to give up these.

(c) He can have indications of changes in taste and fashion, customs and manners, and in the general mode of consumption consequent on changes in price, e. g., whether at a certain time people are spending more on tea or milk, on marriages, or on education, etc., etc.

*To the statesman:—*

(a) He can have a reliable information of the standard of living enjoyed by the people.

(b) He can realise the need of any legislative measures to regulate or prohibit the consumption of certain commodities, e g., liquor, opium, etc.

(c) He can study the effects of any taxes on articles of general consumption.

(d) He can study the comparative effects of taxes on the rich and the poor, and can find out how the taxes can be made such that they fall more on the rich than on the poor how unnecessary consumption can be stopped by taxes, etc., etc.

### QUESTIONS.

1. What is meant by "Utility"? State briefly the Law of Diminishing Utility. Point out the significance of the phrase "other things being equal." What are these other things?

2. Explain as clearly as you can the law of diminishing utility. Are there any real or apparent exceptions to the law ?
3. State clearly the Law of Satiability of Wants. Can you deduce from it any law for the guidance of people's expenditure ?
4. State and explain the Law of Equi-marginal Utility. What is the importance of the law in our every day life ?
5. What is the principle of balance in consumption ? Explain this, both with reference to a particular want and with reference to a number of wants.
6. What do you understand by the following :—
  - (a) Satisfiable Wants,
  - (b) Total Utility,
  - (c) Marginal Utility,
  - (d) Consumer's Surplus ?

7. What are Family Budgets ?

What purposes do they serve (a) to the householder (b) to the economist, and (c) to the statesman ?

8. State and explain Engel's law of family expenditure. How far is it applicable to Indian conditions ?
  9. What advice would you give to your sister in the matter of the regulation of her domestic expenditure with a view to achieve maximum satisfaction.
-

## CHAPTER 9

### ECONOMICS OF SPENDING AND SAVING

**Spending.**—The income that a person has may be used for the direct satisfaction of wants, or may be saved to provide capital for further production of wealth. If it is used for the direct satisfaction of wants, the process is known as spending.

Now the question arises—how should a person spend his income? What should be the method of spending? The answer to this question is that he should take the help of the law of equi-marginal utility. He should compare his different wants. He should calculate the utility which is likely to be derived from his purchases. And he should so spend his money that the marginal utilities of all commodities are equal, for it is only then that the highest amount of satisfaction can be got with the money in hand.

The ordinary Indian peasant in our country does not observe this principle and the result is that he spends on tobacco and liquor, and neglects necessities of life at the cost of health and efficiency. He leads a very frugal life in ordinary times but on ceremonial occasions such as the birth or the marriage or the death of some one in the family, he becomes extravagant and spends money beyond his resources. He even borrows money for the latter purposes at a high rate of interest, involves himself in debt, and can never extricate himself from the clutches of the money-lender for

the whole of his life. He should observe the principle of proper balance in consumption, and should distribute his expenditure over his present and future needs, or over the different articles of consumption that claim his attention at any time, in a wiser and more judicious manner.

**Saving.**—As a man's income rises above the subsistence level, he usually thinks of saving a portion of his income. He may fall ill for a considerable time and may not be able to work and earn during that period. His family may be growing, and babies may have to be fed and clothed. Children may have to be educated at schools and colleges. Daughters may have to be married. The son may require some capital to start a business, etc. etc. To meet all these future needs he has to save.

But in Economics all wealth set aside for the future is not called saving. If a man puts a sum of Rs. 500 in an iron safe to be used in the future, he is simply hoarding—he is not saving. Saving implies that the money shall be used *for further production of wealth*—e. g. either it shall be invested in business, or deposited in a Bank from where others can borrow and put into productive use. The aim of all saving is only an indirect satisfaction of wants—meaning, of course, a *better satisfaction at a future date*.

**Relation between Spending and Saving.**—Spending and saving have one thing in common. In both cases wealth is given in exchange for certain goods and services; the only difference is that goods and services are not put to the same use. When we

consider them from the point of view of spending we find that they are applied in the direct satisfaction of wants; when we consider them from the point of view of saving they are applied for the production of other wealth. Let us take an example. A man has a hundred rupees with him. He wants to spend the sum on getting a suit for himself. In the meantime, the idea strikes him that he should purchase a type-writer with it and earn some money with its help, so that he may be able to spend more on clothing every month. The former would have been spending, the latter would be saving, and evidently both spending and saving are essential features of everyday economic life, and there is a close relationship between them.

However, some people are of opinion that wealth should not be saved, and all of it should be spent. More spending means buying more goods. So sale and production of goods will increase. More factories will be turning out goods. Trade will be brisk. More and more people will get employment. And there will be an era of prosperity. But the position is not so simple. If everybody spends the whole of his income savings will fall off; small savings will mean small capital; small capital will mean fewer machines, tools and plants; and producers will not be able to produce goods. How will the people purchase goods then, and how will spending be possible?

Others argue that all wealth should be saved. Saving will lead to accumulation of capital, plenty of capital will lead to increased production and cheap goods. They forget that if all wealth is saved, and

there is no spending, who will buy the goods produced, and how will the goods find a market.

In fact, for the economic welfare of a country, saving and spending both are important. There is no conflict between them. They are in fact complementary, and co-related, and one cannot be sacrificed for the other.

So there should always be a balance between saving and spending, and a person should so distribute his income between spending and saving that he may secure the maximum amount of satisfaction.

There should always be a balance between saving and spending, and under normal conditions economic forces tend to adjust the balance between saving and spending, or between production and consumption, thus :

Too little saving makes capital scarce, and interest high. High rate of interest induces larger savings. Too much saving makes capital abundant and cheap. Rate of interest falls. Inducement to save decreases. Saving diminishes, and there is decrease in the supply of capital. So on and so forth.

## THE SOCIAL SIDE OF SPENDING

Besides giving satisfaction to the consumer, spending has other effects, too.

Firstly, *spending gives direction to the production of the country.* For example, if people usually buy things, the production of which does not require artistic or high grade labour, the result is that the latter class of labourers disappear from the country, and there is a degradation of the workers as a class.

Similarly, if machine-made standardized goods are demanded by the people in place of artistic products, the industries for the latter decline and disappear. Again, if people begin to use wine, wine is produced; if people become fond of going to the cinema, cinema houses are started; if people make use of explosives, factories for making explosives are worked. And when capital and labour are diverted to the production of luxuries from some other industries, where they would have been devoted to the production of necessities, there must be a reduction in the total welfare of society. For example, if more and more golf-fields and polo grounds are required by the people, land which is now used for growing wheat and rice, etc. will be turned into golf-fields and polo-grounds, and agriculture will suffer.

Secondly, *spending of one class of consumer affects the spending of other classes of consumers.* If the former divert a substantial amount of the productive factors, less of these remain for producing goods for consumption by the others. For example, if we spend much on extravagant things like vegetables or fruits out of season, then much capital and labour will be diverted to these trades, which would ordinarily have been devoted to the production of food for the poor people. Or, if there are more and more cinemas and theatre-houses in a town, more and more plots would be needed for these and there would be a shortage of plots for building houses for the poor, and their rents would rise.

Thirdly, *spending of income on such things as drinking and gambling is very harmful to the society*



*as a whole.* The habit of drinking not only makes the drunkard a less efficient producer, but makes his children also less efficient by lowering their standard of living, health and efficiency, and thus causes a cumulative loss to the nation. Similarly, gambling encourages idleness instead of improving the production of wealth for the nation.

We naturally conclude that the way we spend our income has its effect on society. 'Every act of spending has got its social side', they say.

Should society interfere with our individual liberty in spending ?

Granting then that the way we spend our income has its effect on society, the question arises—has society a right to interfere with our liberty in spending ?

On this subject, the opinions of writers greatly differ. Some argue that no restriction should be placed on spending and that every person should be left free to spend his income as he pleases. Others maintain that all spending should be regulated by the state so as to secure the maximum well being of the whole population, as under Socialism and Bolshevism.

The correct attitude seems to be that society should interfere only when a thing is not only personally injurious but is also harmful to society.

No doubt, absolute control of consumption by the society would make life unbearable. Who would like to spend his income under the direction of the state ? Who would like to make efforts to earn more and produce more, when society would in at every step to fix up the manner of his

spending the income that he gets? But, on the other hand, if there is absolute freedom and no restriction is put on our consumption it becomes hurtful to the society, and also makes our life miserable, e. g., if there are no rules and regulations people would spend like anything on intoxicants and explosives, and obscene things, labourers would have to work under unwholesome conditions in the factories, etc. etc. The state is, after all, the custodian of social interests and the guardian of the future as well as the present generations of the people in a country, and as such it must enact necessary laws in order to regulate the expenditure of private individuals. Usually, it interferes in one of the following ways :—

1. It discourages the use of drugs and intoxicants by placing restrictions on the sale of these things—as to time, place, and person, e. g. a large quantity of these cannot be purchased at a time, children cannot purchase these, and no purchase at all can be made except during certain hours. During the days of the Congress Government, even the policy of total Prohibition was launched in certain Provinces.

2. It discourages the use of similar other things, e. g. tobacco, by raising their price by levying heavy excise duties, or import duties, on them.

3. It saves consumers against the adulteration of goods, like ghee and milk, in several ways.

4. It saves consumers, especially the poor, from an undue rise of the prices of necessities, and, in times of emergencies, like war and famine,

makes certain that consumers have a sufficient quantity of these at least, e g , the system of rationing and price control during the present war.

In earlier times, sumptuary laws, forbidding the use of certain things and insisting on the use of others, were very common ; e g. in Spain in the 19th century silk could not be manufactured, nor sold, nor used, and in England in the 17th century the use of silk for covering buttons and making button holes was made compulsory

### THE PROBLEM OF LUXURIES

We shall now look at luxuries from the point of view of society Surely, the rich persons who indulge in luxuries consider them worth the price they pay for them But are these luxuries justified from the social point of view ?

Now, luxuries are of two kinds (i) harmful luxuries, or those which harm the consumers and materially diminish their efficiency, e g , intoxicants and gambling, and (ii) harmless luxuries, or those which are merely the satisfaction of superfluous wants, and neither increase nor decrease the consumers efficiency, e g , the luxuries of art, and the use of motor cars. The former stand altogether condemned—there is altogether no justification for them But what about the latter—i e , the harmless luxuries?

Harmless luxuries are generally justified on the following grounds.—

1. The desire for luxuries is a mark of progress at the same time that it is a stimulus to invention Many people put forth their best efforts only because they want to enjoy luxuries of life When they see

others enjoying luxuries, e.g., going to the cinema with family and children, spending money over feasts and festivities, driving in a car, etc., etc., they feel a sort of ambition in themselves, too, and work hard to earn more money and thus be able to enjoy such social amenities. The desire for luxuries has often impelled a man to seek wealth, and in seeking wealth, he naturally confers great benefits on the society—there is greater production, there are more and more inventions, etc., etc. Civilization, in fact, consists in wanting many things and in knowing how to get them.

2. Luxurious habits raise the standard of living of the people, and in order to maintain this standard of living, they refuse to marry and they practice birth control, and thus a check is put to the growth of population. It is a common observation that the rich have fewer children than the poor; and when there is a general rise in the standard of living, the population cannot increase in excess of the means of livelihood.

3. The demand for articles of luxury generally requires greater refinement and greater skill on the part of those who produce them. The consumption of luxuries, therefore, raises the standard of artistic excellence. In other words, luxuries encourage art. It was the luxurious habits of Shahjehan which gave the *Tajmahal* to the world. Again, it was the luxury of the Hindu princes and Muslim Nawabs that made it possible for the Indian artisans to produce the "*muslins*."

4. Luxuries, like precious ornaments and stones, serve as a sort of insurance in the days of financial

difficulties. This is the reason why women of our country attach so much importance to ornaments and jewellery, and, during the present war, we have seen that many rich people could find it possible to live on clothes that they already had with them, instead of purchasing them at very high prices. But the poor who had no surplus with them because luxuries were denied to them, could not do so.

Besides the above, luxuries have been justified on certain other grounds ; but these have been criticized too. Let us, however, discuss these arguments in favour of luxuries :

1. Luxurious expenditure gives employment to many, and is generally good for trade. For example, if a rich man gives a musical entertainment, he will employ artists, musicians, and others. His guests will come in cars or carriages, dressed in their best clothes, and some refreshments will be given to them, etc., etc. The entertainment will thus give work to drivers, petrol merchants, car makers, weavers, tailors, washermen, cooks, servants, etc., etc

But it remains to be seen whether or not this expenditure has been rightly incurred. If money is spent, not on luxuries, but on some other more useful commodities which are necessary for efficiency and health, there will be no less employment and briskness of trade. So this argument has little force.

Besides, the rich have no right to indulge in luxuries while a large number of the poor go about without even necessities of life being provided to them. In strict justice, luxuries should be permitted

only when all have been provided with necessities. The motto should be "*Necessaries for all before luxuries for any.*"

The evil effects of luxuries are all the more condemnable when the poor indulge in luxuries. The use of luxuries takes place at the cost of necessities. Many "*ekkawalas*" go to the cinema, though their children at home may be starving. Many "*Bhishhtis*" (water carriers) at Lucknow have been seen selling off their "*mashaks*" just to be able to purchase a ticket for a famous theatrical show.

2. Another argument is that luxuries lead to the transfer of wealth from the rich to the poor, i. e., from those who can spare to those who need. But this is also very doubtful. When two people gamble, where is the guarantee that the winner will make a better use of money than the loser would have made of it? Drinking and talkies are the luxuries of the rich and the poor alike. Besides, the amount of money, that a rich man gives to the poor for the supply of luxurious articles, is not kept by the latter entirely for himself. The preparation of the articles requires costly raw materials and costly tools, and the labourer has to pay for them. And this payment has to be made mostly to rich persons who alone deal in such costly things. Naturally, a large portion of what the labourer receives passes out of his hands into the hands of the rich, and this argument, too, has little force.

However, we come to the conclusion that luxuries are justifiable from a social point of view, and cannot be condemned altogether, except harmful luxuries, like wine,

## WASTE

We have now discussed the social side of spending. We have seen how individual spending in many cases results in wasteful consumption from the point of view of society. We shall now try to understand the meaning of waste in Economics.

Waste means the spending of money without a corresponding amount of satisfaction in return. In other words, it is the making of an effort which does not bring a corresponding return of satisfaction. As for example, a man spends Rs 1000/- in giving a banquet to his neighbours, friends and relatives on the occasion of his son's marriage. From his individual viewpoint, it is not waste, as the sacrifice brings him pleasure. But from the social point of view, it is sheer waste in as much as this fleeting enjoyment involves disproportionately large sacrifice of labour and capital. Similarly, destruction of wealth, whether accidental or wilful, is generally a case of waste. For example, if milk gets spoilt or fruits get rotten, or if food is left uneaten in the dish, or a building is destroyed by fire, earthquake or a bomb dropped by the enemy.

No doubt from the individual point of view no spending can be waste unless there is miscalculation. For, a man pays for a thing up to the margin at which the satisfaction equals the price, and he gets consumer's surplus on all the preceding units. But from the social point of view an expenditure may be called waste. It is so called when the satisfaction to the consumer is less than what might have been obtained if the productive factors

were employed in producing different things for other members of the community.

It is certainly right that if a building has been destroyed, it will have to be replaced and employment will thus be created for other producers; but had the building not been destroyed, the energy and time spent on its replacement would have been spent on some other useful objects. Thus extra employment created is at the sacrifice of other objects; and replacing of wealth which is wasted does not add to the wealth of a nation. (Destruction of wealth is good only when it is necessary under the circumstances, for example, demolishing of old buildings to have better healthy quarters, etc.)

NOTE.—Economic and Social waste are both the same because the individuals belong to the nation, and what is economic waste is surely a social waste. But viewed from one aspect one thing may be called an economic waste merely and another a social waste. A young man works long and late, and spends a lot of money to become an engineer. After securing his degree of engineering, he is unable to get any employment or take up any profession. This is an example of economic waste. If a large number of such people remains unemployed at any time, this may be regarded as social waste. Similarly, extravagant expenditure by a large number of people in India on trifling ceremonial occasions may be regarded as economic and social waste.



## QUESTIONS.

1. What is the object of saving ? How does a man decide what amount of his income he should spend, and what amount he should save ?
2. What is the relation between saving and spending ? Who is of greater service to the society—the miser or the spend-thrift ?
3. What is meant by the social side of spending ? Discuss the various ways whereby a man can effect other members of the society by the manner in which he makes use of his money.
4. Is it of any consequence to society as to how a person spends his income ? Should society interfere with individual liberty in spending ?
5. What are luxuries ? Is there any social and economic justification for these ?
6. What do you understand by 'waste' in Economics ? Distinguish between social waste and economic waste.

PRODUCTION .

## CHAPTER 10

### WHAT IS PRODUCTION ?

#### What is Production:—

From our study of consumption we have learnt that man is a bundle of wants. These wants need to be satisfied. They cannot be satisfied unless we make an effort to satisfy them by producing the things which will give us the required satisfaction, and every one of us is making efforts in one form or other. This effort necessary for the satisfaction of wants is called "Production".

Now *man cannot create matter*. He cannot add any thing to the existing stock in this world. He cannot produce something out of nothing, e.g., a carpenter can make a table, but he must have a log of wood before he can do it, a fisherman can draw fish forth from the river but there must be fish present in the river. All that man can do is to re-arrange matter in such a way as to make it more useful to man. In other words, **man can only create, or rather add to, utility; and production in Economics is nothing but the addition of utility.** The farmer arranges seeds in the soil in such a way that they draw sustenance from the earth and from the air and grow into plants. The shoemaker converts a piece of leather into a pair of shoes. The milkman brings milk from the dairy to the home. The shopkeeper hoards a stock of goods from which his customers may select as and when they wish. So on and so forth. Thus what man can do is to

produce either the *form* or the *place* or *time* or *service utility* —

### 1. Form Utility :—

This is created when the actual physical shape or form of a thing is changed, e g., when the carpenter makes a chair out of wood he produces form utility

“Utility of chair

minus

Utility of wood

=the additional utility created or produced by the carpenter.”

PLN SON.

Similarly, when raw cotton is converted into cloth, or grass into paper or sugarcane into sugar we have ‘form utility’

### 2 Place Utility :—

This is created when things are not transformed but transported from one place or one person, where or to whom they are less useful, to other places and to other persons, where and to whom they are more useful. For example, when coal, gold or iron-ore are dug from the mine and are brought in to use, or when a timber merchant cuts wood in the forests and brings it into market, or when foodstuffs from the village side are sent to the towns, we have place utility.

### 3. Time Utility :—

This is created when things are preserved or stored for some time for future use. For example, when milk is preserved in air-tight bottles or fruits are conserved in cold storages. or when the village

Mahajan purchases agricultural produce, say rice, at the time of harvest, stocks it for a few months and resells it at a higher price, we have time utility.

#### 4. Service Utility :—

Some writers also take into account service utility—the utility of human labour is called “service utility”, e. g., when a *Madari* or a juggler shows his tricks, or a dancer is engaging the audience, the people present experience some pleasure. Here the effort of the juggler or the dancer is known as service utility. Similarly, clerks, domestic servants, doctors, teachers, mill labourers, sweepers, etc., create “service utility”.

*Note :* The wood in the forest exists as wood and is capable of satisfying many wants. Its existence as wood is said to have “elemental utility”.

#### Factors of Production or Agents of Production:—

In order to produce, the co-operation of the factors of production is necessary. The factors or agents of production are four, viz., land or Nature, labour, capital and organisation. Sometimes the last is split up into two—viz., organisation proper, and the risk-taking part of it or enterprise.

**Land** consists of all those things in nature which are given in fixed quantities, free of cost and which can be worked but not increased by man. This includes not only agricultural lands and lands for building and other purposes, but also mines, fisheries, water and wind power, mountains and rivers, even the heat and light of the sun and the moon, etc.

**Labour** means the working-force of the country represented by men, women and children who work in the expectation of a reward, or for wages, e. g.,

the Viceroy of India getting Rs 21,000/- and a labourer in a mill or on a farm getting Rs 10/- are both labourers

**Capital** means wealth already produced but used not as a means towards the direct satisfaction of wants, but as an aid to further production of wealth, e.g., tools and machinery, or seed-grain used for growing more crops (not the grain used for consumption)

**Organisation** or the combining together of land, labour and capital in such a proportion as to get the maximum of results with the minimum of efforts, the superintending or directing of their operations, and controlling the policy of the firm. The person who does it is known as an organiser, enterpriser, or 'entrepreneur.'

*Note:* In the modern system of joint stock companies the risk is undertaken by the shareholders, who alone share the profits and losses of the company, and the organisation by the directors and managers who are paid salaries for their work. Thus organisation is split up into two parts, (i) organisation proper and (ii) enterprise or risk taking. The managers and directors are the organisers, and shareholders are the enterprisers or entrepreneurs or risk-takers, (In practice, no doubt, there is seldom a complete separation of the different factors of production. All the four agents may exist in the same person, e.g., the same man may supply land, labour, and capital, and act also as organiser and risk-taker. But they are logically distinct in regard to their functions.)

**Relative Importance of the Factors of Production :—**

In the history of the development of economic life, different factors of production have been of special importance at different stages. In the earliest stage of production, nature's contribution is supreme. As society progresses labour as a factor attains greater prominence and develops a power to control the forces of nature. Later on when savings begin, and capital comes in, steam power and machinery are introduced and capital challenges the supremacy of labour. Again, with the growth of large-scale production, organisation becomes indispensable, and ultimately, as large-scale production is not possible without risks, the entrepreneur or the enterpriser comes into the field and plays the most important role. So all the factors of production have got their importance, though the presence of all of them is not always necessary for production, e. g., a singer who delights his hearers by his music, is only utilising land to sit upon and his labour to give the voice; while in the case of a mill or factory, capital and organisation are as important as labour and land. However, no production is possible without the two factors—land and labour; and these are therefore known as *the ultimate agents of production*. ( Capital is only the result of land and labour, and enterprise or organisation only a form of labour. )

Of nature and man, it is difficult to say which is more important. "Labour is the Father and active principle of wealth, as lands are the Mother." But land is more or less fixed for a nation, and can be

altered by man only to a very limited extent, while labour may be changed almost indefinitely, and therefore, the latter is more important than the former. It is man who harnesses air, water and electricity to drive his machines and thus increase the wealth of his nation. In modern society, however, capital and organisation are no less important.

NOTE — Certain economists have reduced the five factors of production into two, viz (1) Land and (2) Labour. According to them, capital is nothing but the joint product of land and labour, while organisation and enterprise are but forms of specialized labour. Thus land and labour are regarded as the primary factors of production, while capital, organisation, and enterprise are known as secondary factors.

### Efficiency of the factors of production —

For purposes of production, we not only require the factors of production, but we also want that they must be efficient.

By efficiency we mean the ability or capacity to produce. In order that a factor of production may be called 'efficient' it must have the capacity to achieve much or produce much, with comparatively less effort or cost. If land is more productive, we say it is more efficient. If it is less productive we say it is less efficient. Similar is the case with labour, capital and organisation.

For example, an acre of wheat in India produces only 780 lbs of wheat while the same area of land in Denmark produces 2340 lbs. Similarly, while India produces 98 lbs of cotton, U. S. A. produces



141 lbs. .Evidently efficiency of land in Denmark and U. S. A., is greater than in India. Again, an English labourer is 3 to 4 times as efficient as an Indian labourer. So on and so forth.

Now efficiency of a factor of production depends upon various things. It depends upon its own efficiency, and also on the efficiency of other factors of production with which it is combined.

For example, the efficiency of land depends upon :  
 (a) the natural conditions affecting land ; e. g., geographical situation, soil, climate, fertility, etc., all have their effect on the efficiency of land and its output. (b) the facilities of transport and communication ; e. g, the presence of roads, railways, and canals, generally enhances the value of land or the value of the produce raised on such land, and (c) the method of cultivation ; e. g., whether it is extensive or intensive cultivation, whether the use of scientific manure is being made, whether rotation of crops has been introduced, etc., etc. Similarly, the efficiency of capital depends upon (1) the fitness of capital to help production ; e.g., a huge building to accomodate a very small industry would be a waste ; a blast furnace capable of producing 1 million tons of steal would be a waste when the demand is not likely to exceed 1 thousand tons ; and an attempt to publish a paper by hand press in competition with a rotary machine which can print in one hour about 36000 pages would amount to waste because the relative cost or production would be several times greater in the former case ; and (2) on the method of its application ; e.g., if the machines are not efficiently worked by labourers, the best

of machines would prove to be unproductive. In the same way, efficiency of labour depends upon the fitness of the labourers to work, physically, intellectually, and morally (see Efficiency of labour), and the efficiency of organisation depends upon his organising ability, that is his, quick intelligence, sound judgment, courage and foresight. e.g., an efficient organiser will make purchases of raw materials from the right place at the right time will make, the fullest use of labour, materials, and machinery by having perfect division of labour and specialisation, will try to bring down the marketing expenses, will take advantage of proper advertisement etc., etc.

The efficiency of all the factors of production can be developed and improved, and the more efficient the factors of production are the better is the production in the country and the greater the well being of the community.

### QUESTIONS

- 1 Explain Production. What are the factors of production?
  - 2 Production creates utilities. Explain the various forms of utilities that are created in the act of production.
  - 3 What do you understand by the efficiency of a factor of production? On what does the efficiency of land and capital depend?
-

## CHAPTER 11.

### LAND

### NATURAL RESOURCES OF INDIA

#### What is Land ?

Land consists of all natural forces which are given in fixed quantities, and which can be worked but not increased by man. This includes not only agricultural land, land for building, and other lands, but also forests, mines, fisheries, water power, etc., etc.

Thus to the economist land means not only land as is ordinarily understood by the word, but many other things as well. It is a general term applied by him to all things given by nature and not capable of being produced by human agency. It includes many things that are *in* land, as soil and its fertility, *on* it, as forests and rivers, *under* it, as minerals, and *over* it or *above* it, as air, heat, light, and rain.

#### Characteristics of Land :—

The distinguishing feature of land from all other forms of wealth is that, whereas the quantity of all other things can be increased or decreased almost at will, the supply of land cannot be so increased or decreased. The supply of capital and labour may be increased but no matter how much a man may want coal, he cannot produce from his land more coal than exists there by nature; no matter how much a cultivator wants sunshine or rain, he has to be content with what reaches his land by the natural processes. The area of the earth's surface is fixed and it cannot be increased or decreased by

man Nor can man carry the desert soil of Rajputana and fix it in a rainy area in Bengal

In other words, *land is limited in quantity* If we want to increase production we may increase labour and capital, but not land The supply of labour will increase as the population will grow in a country The supply of machines and tools, etc., too, can be increased in course of time But we cannot increase the number of coal or gold mines in a country, nor can we get more rain than what reaches the earth's surface from above

Other characteristics of land are —(a) Land is an essential factor of production Nothing can be produced without land (b) Land is a passive factor of production It can be made use of only when it is acted upon by labour and capital (c) Land is indestructible (i.e., it cannot go out of existence, it cannot be destroyed) for it does not wear out by use as other forms of wealth sooner or later do (d) Land is not mobile Its location is fixed So on and so forth

### Importance of Land —

Man is dependent upon land for every need of his life He cannot sit walk, or work, without space Air, water, and light are essential for his life, etc., etc Similarly, our economic activities depend mostly upon land A country which is rich in natural resources is also likely to be a rich country, and the nations which today stand in the front rank of the world producers are those whose natural gifts are large extensive and valuable The coast line and rivers, the proximity of rich coal and iron

fields, the temperate moist climate, and the fertility of the soil are still the foundations of the wealth of a nation ; and, although man's conquest of nature is great, there are limits to this process, and, in the last resort, men must depend upon the materials and powers of nature. Let us see below how the economic development of a country is influenced by land :—

*Firstly*, the economic life of a country depends upon its natural resources, e.g., a country where the soil is fertile but the mineral resources poor, will remain predominantly agricultural ; while a country where mineral resources ( particularly coal and iron ) abound, and where forests provide raw materials like lac, rubber, pulp, etc., has a greater chance of becoming an industrial country.

*Secondly*, the industrialisation of a country depends upon its agricultural resources. The latter in their turn depend upon soil and fertility, rainfall and climate, geographical situation, etc., etc. For instance, in India, cotton manufacture, jute manufacture, and sugar industry are developing because the country produces large quantities of jute, cotton and sugar-cane.

*Thirdly*, the influence of climate over industries is great. In cold climate, woollen industry is bound sooner or later to develop, firstly because pasture land for animals will be more abundant than farming land, and, secondly, because there will be a demand for woollens. Besides, it is a well-known fact that the damp climate of Lancashire is more suited for the cotton spinning industry than the climate of

India. In India herself, the climate of Bombay is more suited for this purpose than that of any other place.

*Fourthly*, the presence of sources of power, e.g., hydro-electric power, is also a necessary condition for the development of industries; and we must have mountains and rivers, waterfalls and rainfall, etc. to provide us cheap and suitable sources of power.

Thus we see that a country's agricultural development depends upon the fertility of the soil, and its industrial development on its mineral and power resources; and both depend upon climate, geographical situation etc., etc. So important, indeed, are natural resources in their influence on production that they frequently determine the supply and amount of a nation's wealth. For example, Britain is rich in natural resources; and her supplies of coal and iron, her geographical position, her climatic environments, her natural harbours, navigable rivers and fertile soil have placed her in the front rank of the world's producers; and the United States are to-day developing leadership in the world's industries for similar reasons—their natural resources are unrivalled.

## NATURAL RESOURCES OF INDIA

### Area and Location :—

India is a huge country. It extends 2,000 miles east to west and 2,000 miles north to south, and with an area of some 2 million square miles, it is as big as the whole of the continent of Europe exclu-

ding Russia. It has also a huge population of nearly 40 crores ( or 400 millions )—next to China, the biggest in the world.

It occupies a highly favourable position as regards the rest of the world for purposes of economic development and trade. It commands shipping and air routes running in all directions. It can trade with equal ease with China and Japan, with Australia and Newzealand, with East and South Africa, with the Levant and Europe, and with Russia, Iran, Irak, and Afghanistan. It has also an extensive sea-boundary, though it has not many good harbours and its shipping position is weak, for it has hardly any mercantile marine worth the name.

### **Mountains and Rivers :—**

India is rich in mountains and rivers. The snow-clad Himalayas not only shelter us with an inexhaustible supply of all kinds of animal, vegetable, and mineral wealth. They are also natural reservoirs of water and send down rivers and waterfalls into the plains. Similarly, the Western Ghats and the Eastern Ghats are a boon and a blessing to the country.

The number of rivers is also large, and, before the introduction of railways, they played an important part as carriers of commerce. They are also the feeders of those important irrigation works on which the prosperity of the Punjab, Sindh and United Provinces so largely depends. Besides, flowing water is a great source of hydro-electric energy, and our water power resources are, next to those of Canada and the United States of America, the best in the world.

**Rainfall:**—The chief factor which has contributed to the importance of agriculture in India is rainfall. It is almost entirely dependent on rainfall, particularly by the south west monsoon; so much so that it is often said that agriculture in India is a gamble in rains. But the rainfall in India has certain drawbacks:—(i) It is not evenly distributed. There are some places like Assam, Eastern Bengal, Eastern coastal strip, which get over 80 inches of rainfall, while others, like western United Provinces the Punjab, most of the Deccan Peninsula, which get between 10 inches to 3 inches of rainfall, and still others, like Sindh, Baluchistan, Rajputana, which are almost rainless tracts. For example, while Cherapunji gets 460 inches of rain, Upper Sindh gets only 3 inches. (ii) It is seasonal and, therefore, the winter crops are not much benefited by the monsoon. (iii) It is quite uncertain. One year there will be lots of rain and the next year very little; one year it will rain more heavily in Gujrat than in the Central Provinces, and the next year it will be just the other way about; one year it will come early and disappear soon, the next year it will come late and linger on for a long time.

**Climate**—India has a tropical climate. Its effect on human beings is depressing. It leads to a low tone of health and vitality. It is characterised by extremes of temperature. Intense cold in winter and scorching heat in summer, both have a depressing effect on the people. Yet, it must not be forgotten that the climate of India is "delightful in all parts of the country for some months of the year and in some parts of the country all the year round".



Now tropical climate is a climate of luxuriant vegetation. Nature yields the means of livelihood with comparatively little effort on the part of man, and thus makes him disinclined to constant and continuous activity. However, no general statement can be made about the climate of India, because it is a continent rather than a country, and every sort of climate is found in one part of the country or another.

**Soils :** We have the following varieties of soils in India:—

(a) *Alluvial Soil* of the Indo-Gangetic Plain:—

The alluvial soils are the most extensive and agriculturally the most important and comprise the fertile valleys of the great river systems of India. They extend over Bengal, some districts of Madras, Assam and Burma, the United Provinces, the Punjab, Rajputana, Sindh, Gujrat and Eastern and Western Coasts of the Deccan.

These soils have been formed of minerals swept down the mountains by the numerous rivers, and thrown out in the form of alluvium or silt. These soils are chemically very fertile, and physically easy to dig and to plough. They are well irrigated either by rain-fall, or by wells or canals taken out of the rivers. They are deficient only in nitrates; that is why cattle dung ( which contains nitrates) is the most common and effective manure in India.

These soils are suitable for the growth of a variety of crops. Rice is extensively grown along the Ghats, and in Burma and Bengal where rain-fall is abundant. Jute is grown in lower Assam

and Bengal. In the United Provinces and Punjab, where well irrigation is common, cotton, sugar-cane, and wheat are extensively grown.

(b) The *Deccan Trap Soil* of Central India and the Deccan.

The next important soil is the trap soil which extends over the whole of the Deccan, and greater portion of Bombay, Berar, the Eastern part of the Central Provinces, and Hyderabad. On the up-land and on the slopes of hills they are poor in quality; in the lowlands, they are more fertile, and help to grow cotton, wheat, millets, and pulses.

True black cotton soils occur within the area of the Deccan trap. These soil are of dark colour, and are specially suited for the growth of long-rooted, cotton, hence the name. They are clayey soil rich in phosphates. Under the heat of the sun they crack extensively and take in the monsoon rain, which they absorb. Thus they are said to plough and irrigate themselves automatically.

(c) The third type are the *Crystalline Red Soil* found in the south, i. e., in Southern Madras and Mysore; to some extent in Hyderabad and South Bombay, and also in Orissa and South Bengal. They are of middling fertility. Under efficient irrigation, rice grows in abundance. Other common crops like pulses are also grown moderately.

(d) The last type are the *Laterite Soils and the Rock Soils* of sub-mountain tracts. They are found along the foot of the Eastern and Western Ghats and in some parts of Assam and Burma. Though on the whole deficient in chemical constituents

certain varieties are fertile too. Their chief source of fertility is the decomposition of vegetable life under excessive rainfall, and they vary in fertility according to this decomposition. They are mostly clayey, and are not important from the point of view of cultivation.

**Minerals.** India is rich in her minerals, but the mineral wealth is not great relatively to her size and population. In many cases the potentialities are great, but the mining industry has not been sufficiently developed. In other cases, the method of working is very crude, and the country does not earn as much as it should, e. g. in the case of mica. Again, most of the minerals are exported to foreign countries in a raw state. Even in our own country the industry is in most cases indebted to foreign capital. In fact, the profits of mining industry go mostly to the pockets of the foreigners. We must develop the mining industry by the most efficient methods, and side by side we must learn to make use of the minerals in our own country.

To take an example, let us consider the case of iron. We have the best store of iron underground, but only little is taken out, and a part of this even is sent away in a raw form, to let others finish it and pocket the best part of the profit. We send out more and more of the iron we produce to England and other countries, and then we buy back from them steel and steel goods made from our own iron. [ Iron is found in the earth in the form of rocks or rare earth called *ore*. This ore is put into furnances which are so hot that the iron melts and

flows out—this is known as *smelting*. Then this iron is allowed to cool in moulds shaped something like a pig, which is why this rough iron is called *pig iron*. And then again this iron is mixed with carbon and with other metals like manganese to give us *steel*, which has greater strength than iron and can be easily hammered to different shapes.] We extract nearly 2 million tons of iron, but we make only just over 1 million tons of steel, while Germany extracts 3 million tons of iron but produces 23 millions tons of steel with her own iron and the iron which she gets from France and Sweden. By the way, we must note that manganese, too, which is used for making steel, and in the production of which India stands second only to Russia, is mostly exported to other countries, and is not made use of in the country at all.

A few of the minerals of India are :—



MINERAL PRODUCTS OF INDIA.

**COAL:** Coal is the most valuable mineral. Most of Indian coal is consumed by the railways. The sources of coal are Bengal, Behar and Orissa, the C. P. and Central India, and Hyderabad Deccan. Raniganj, Jheria, Bokaro, Giridih and Barakar mines in Bengal, Behar and Orissa are famous. A little coal is also produced in the Punjab and Baluchistan, but the supply is altogether insufficient and meagre.

The *quality of Indian coal is inferior*. British coal is  $2\frac{1}{2}$  times as efficient as Indian coal. And as the *coal-fields are not distributed all over the country*, but are confined to one locality, transport charges make the price high in the provinces distant from Bengal, and the competition of South African and Australian coal has to be faced. In addition to this, coal-mining in India suffers from climatic disadvantages, owing chiefly to the hot climate which does not allow working underground; labour is inefficient; little use is made of coal-cutting machinery, etc., etc.

**IRON:** India is exceptionally rich in iron ore. It is not only large in quantity but also as rich in content as nature can provide. Largest deposits occur in Orissa, Bengal, and Behar (ores occur here in the form of hills), though small quantities are also found in Dharwar (Bombay), in Mysore, in the Bellary district of Madras, and in some districts, of C. P. In all, India produces about  $2\frac{1}{2}$  million tons a year. (Of course, U. S. A., France, Germany, Russia, and Britain all produce more; but the reserves of iron are not less in India as it is estimated that Indian mines contain no less than 3000 million tons of iron ore, i.e., three-fourths of the estimated total

in the United States, or a little less than one-third of the world's entire reserve.

In order that iron ores may be sent abroad, they have first to be converted into pig iron, but this industry of iron smelting by modern methods is carried on in India at present only by the Tata Steel and Iron Works at Jamshedpur, and two other smaller companies—Indian Iron and Steel Company and Bengal Iron and Steel Company. Still, we are the principal suppliers of pig-iron to Japan and have caused alarm to the British and American industries by under-selling them in their own markets. For the industrialization of the country itself, the expansion of the iron and steel industry is no less important *'coal and iron are the two legs on which industry walks'*.

**MANGANESE:** This is also one of the important industrial minerals, and is used chiefly in the manufacture of glass and high-speed steels, and in the chemical and electrical industries. It is produced principally in the O. P., Bombay, Mysore, and Madras. India is second in the world, Russia being the first, in the production of manganese, but about 80% of the total output is exported at present to Europe, America and Japan; and it is a pity that we have no manganese chemical industry of our own. Neither we use it for making steel by mixing it with iron. Nor do we use it for washing, colouring, disinfecting purposes. We simply ship away all the ore we dig out.

**PETROLEUM:** It is also a primary industry. Petroleum wells are found at the eastern and western

ends of the Himalayas—on the west in the Punjab and Baluchistan, and on the east in Burma and Assam. Of these sources, the most valuable is Burma.

KEROSENE and PETROL have come to occupy an important place in the consumption of India. During the last 30 years, India's produce has risen to three times as much as before, being now 300 million gallons; still her imports continue to be large. The imports come from Russia, Persia, and U. S. A.

MICA : It is used in the making of electrical materials (including wireless telegraph). India is the largest producer of mica in the world. South Behar, Madras, Travancore, etc., are the most important producers. The method of working is, however, very crude, and the country does not earn as much on this as it should. Besides, most of the produce is exported, and we have no industry in our own country to utilise this here.

GOLD : India produces only 3% of the output of gold. The bulk of it comes from the Kolar mines in Mysore (but they are now practically exhausted). Anantpur in the Madras presidency, and Hatti in Hyderabad Deccan are other mines. It is also found out of river silt by dredging in the Punjab and in Burma.

*Other mineral resources of India include salt, salt-petre, silver, lead, zinc, tin, copper, aluminium, jade, chromite, potash, amber, diamonds, rubies and sulphur. Chalk, limestone and magnesia are also important. Cement is manufactured in Central India and the Punjab and competes in quality with the best English cement.*

**Forests :** Forests have got a number of uses —

1 They have a great effect on the climate and rainfall of the country. Plantation of forests makes a hot and dry climate less hot and dry, and the cool atmosphere resulting from the presence of forests has a greater capacity to attract rain. For example, the rapid denudation of forests in the district of Etawah in the U P was turning it into a desert at the rate of 250 acres a year, and afforestation—planting of Babul, Shisham and Teak trees—had to be taken up to stop this.

2 They hold together the fertile surface soil. They store water and dole it out gradually, thus preventing floods and droughts and checking erosion. ( By *erosion* we mean the gradual eating away or wearing out of the soil by natural forces like wind and river-water so as to reduce the surface of the soil to barren-ness ) Trees check the force of flowing water, either after heavy rains or during a flood, and thus save surrounding lands from erosion, which is the source of great loss to agricultural land. Not only do they check this force but they also absorb through their roots and countless fallen leaves quite a large quantity of the falling rain like a sponge, and dole it out later on. The careless destruction of forests on the mountain slopes has increased the damage from erosion, land-slips, floods and destruction of fertile valley lands, and in different parts of the country, especially in Bundelkhand, and some native states, deep ravines have been formed. Similarly, the bed of the *Jumna* river in the United Provinces has got 50 feet lower in the last 500 years due to the torrents of water in the rainy season.



rushing down from the mountains in a way that would not have been possible if the forests had remained there to break their force. To prevent the soil from these, afforestation ( planting of forests ) is necessary.

3. They add to the fertility of the soil by allowing the leaves, in which is stored up food material, to fall down and to be mixed up with soil.

4. They supply the people with timber for building their cottages, fuels for cooking their food, and grass and leaves to feed their cattle with. They also supply raw materials for various industries—fibres, gums, and resins; rubber; drugs and spices; myrobalans, peppers and cardemoms; wood for match industry and for distillation purposes; barks of trees for tanning leather; lac and turpentine for the manufacture of gramophone goods, varnishes, and ink; grass and bamboos for paper and sugar industries, etc., etc.

Naturally the importance of forests in the economy of a country is great. Experts have estimated that about 20 per cent of forest area is the minimum for the economic needs of a progressive country. Judged from this standpoint, we have too few forests and at too remote places from the centres of population. The result is that there is shortage of timber for building purposes, there is shortage of fire wood for cooking purposes, there is shortage of fodder for cattle, and there is shortage of rain, while floods and erosions are quite common. And it is clear that the preservation of forests and afforestation, as well as development of industries

based on forest produce, are great needs of the country—we must preserve the forests both in the hills and on the plains

The Indian Forest Department has been organized to control and develop the forest resources of the country. It now controls nearly one fourth of the total area of India. A Forest Research Institute has also been established at Dehra Dun for the purpose of carrying research work in forestry, and certain new processes, e. g., paper out of bamboo pulp, have already been discovered

But our forest industry is still very backward. The Government revenue from forests is only 5 crores per annum, while in Germany with a much smaller forest area it is 45 crores. The commercial side of the forests must be considered, means of transport and communication must be developed, the administration of the department must be improved, the agriculture and the forest departments should be brought into closer contact, and the area of protected forests must be extended.

**Power :** The sources of power, that is, the material forces generally used to set machinery in motion are water, wind, coal, wood fuel, petrol, oil, electricity and animals. Streams of water in the hills enable us to work water mills, the force of winds enables us to move boats and work the wind-mills, coal and woodfuel are used to generate steam and work steam engines or to produce gas for driving machinery as well as for heating and lighting purposes, petrol and oil are used for driving oil engines, motor cars and buses, and aeroplanes,

electricity is used for working mills and mines, and for driving trains; and animals, bullocks, horses etc., are used for various agricultural purposes on the field.

Almost all these sources of power exist in India to a greater or less extent. But *in modern times, the word source of power stands generally for such mechanical energy as is used for driving engines and machinery, e. g., wood-fuel, coal, petrol, and electricity,* and the position of India as regards these is as follows:—

(1) WOOD FUEL: Forests provide wood-fuel; and forest resources of the country are large. But many of the forests are confined to hilly regions in India and transport is difficult and expensive. Besides, with the growth of population, the area of forests in the country is becoming smaller while the demand for fuel for home consumption is growing larger every day. Naturally, the supply of wood-fuel as a source of power is altogether inadequate for the country. The only happy thing is that it is now an out-of-date and un-economical source of power as compared with coal and electricity.

(2) COAL: India produces a sufficiently large quantity of coal—about 22 million tons annually—but India's coal is unevenly distributed. Most of the coal raised in India comes from Bengal, Behar, and Orissa; and in provinces distant from Bengal transport charges make the price of coal very high; for example, since the Great European War, Bombay has found it cheaper to import coal from South Africa rather than have it from Bengal. Be-

sides, the quality of coal found in India is very inferior. And, as a result of these two drawbacks coal has not been so helpful in the rapid industrial development of the country as it should have been, for example, the iron ores of the Madras Presidency have not been successfully exploited to this day. But the fact remains that coal is an important source of power in the country, and in spite of the growing use of electricity, it still holds its own, and may even be expected to be used more widely in the future. It is used very extensively in driving railway and steamship engines today. The total reserves of coal in the country are estimated to be about 60,000 million tons.

(8) PETROLEUM and ALCOHOL: These are known as liquid fuels. They are, also, important sources of power.

We have two distinct petroleum producing areas in India—the eastern area in Burmah and Assam, which gives 9/10ths of the total supply in the country, and the western in the Punjab and Baluchistan, and the production is gradually increasing, being over 300 million gallons today. But India is not an important petroleum producing country and the supply is not enough to keep pace with the demand. Besides, as the bulk of India's petroleum is produced in Burma, the cost of transport becomes a serious factor when carried long distance, and much oil is imported from America and other countries. It is costly, too. Thus it is not at all a promising source of supply so far as the future is concerned.

As regards alcohol also, the possibilities are not very large. It is, however, believed that large

supplies of fuel alcohol could be obtained by the distillation of "Mowra" wood, which grows abundantly in the forests of India, and from Indian potato.

4. **WATER POWER:** The situation in India in regard to the supply of coal, wood-fuel, and oil for purposes of generating power is, as seen above, not quite favourable. However, there are fair prospects for the development of water power supply. In the north are the perennial rivers, which ensure a constant water supply, evenly distributed throughout the Indo-Gangetic Plain. In the south, monsoons are fairly strong, and, therefore, if storage works could be established, the problem of water power could easily be solved. Power is one of the essential conditions of successful industrial development, and in this matter at least the potentialities of India are great. Water-power is also the cheapest power—it costs 75% less than coal fuel or oil; the transmission of power through insulating wires is easy, and the tail-water can be used for irrigation.

Great strides in this direction have already been taken and we have the following great schemes in the country :—

(i) **Tata Hydro-electric Works at Lonavla:** This is the greatest scheme of its kind in India and possibly in the world, and is yet constantly undergoing expansion.

On the Western Ghats the rainfall is very heavy (more than 500 inches a year) and artificial lakes have been constructed to store some of its water. This is at a height of about 2000 feet above sea-level.

The power-house is situated at the foot of the hills, 1725 feet below the lakes in which water is stored. In falling from this height water develops a pressure (of 750lbs per sq inch) and with this force drives the *turbines* or water-wheels. The turbines turn dynamos, which produce electric power, and this power (or current) is utilised to drive the cotton mills in Bombay, to work the Bombay Electric Supply and Tramway Company, and the Harbour Branch and Bombay Kalyan sections of the G I P Railway. The water after doing this work is also used to irrigate the fruit and the vegetable gardens, of the district (Current from Niagara Falls goes 460 miles to New York and drives mills and factories there).

This scheme has been greatly extended by the addition of the Andhra Valley Project, the Nilla Mulla Scheme, and the Konya Valley Project. It has already a capacity to produce more than 250,000 horse power of energy.

(12) **The Ganges Canal Hydro-electric Project in the U P** It is the co ordination of three schemes at different places—Sumera (Aligarh), Bhola and Bahadrabad (Meerut), and Palra (Bulandshahar), worked by the grid system (i e, these three stations are so connected that if any one of the falls is closed for any reason there cannot be any interruption in the production of electricity which will continue to be supplied from the remaining stations). The main artery is the Ganges Canal with its power station at Bahadrabad. The stretch of the country covered by the scheme lies between Rurki and Saharanpur in the north, Agra and Muttra in the

south, Meerut and Muzaffar Nagar in the west, and Moradabad in the east. The scheme irrigates a large area of land, chiefly in the Moradabad District. It has very much encouraged the construction of tube-wells in the Province, and electrifies towns like Khurja and Meerut, Moradabad, Aligarh, Bulandshahar, etc., etc.

(iii) **The Mundi Scheme in the Punjab :** This is the most important scheme in the Punjab. The scheme is in three stages, and at present only one stage has been completed at a cost of 6 or 7 crores. The Mundi Scheme proposes to supply energy to all the big factories of Northern India upto the Delhi Province.

(iv) Other important schemes are the Cauvery River Scheme in Mysore State, Pykara Project in Madras and the works in Kashmir.

*Note :* The development of hydro-electric works in India is expected to go a long way towards the development of cottage industries where-in lies the future prosperity of the nation. Electricity, specially electricity generated by hydro-electric process, is cheaper than any other source of power, and therefore, it may be used by the people in the villages for running small power-looms, for crushing cane or pressing oilseeds, for manufacturing sugar by the indigenous method and for running flour mills, etc., etc. At the same time, it will be helpful for agriculture, because it will extend irrigation facilities with the help of tube wells, and will enable the use of better ploughs and other implements which may be worked by means of electricity—e. g., for sowing, for reaping, for thrashing, for working tractors, etc.,

etc and, above all, large industries will reap rich benefits from the development of water-power. The cost of production will be considerably lowered and our industries shall be able to compete with the industries of other countries.

As things are, India has next to Canada and the U S A, the finest resources of water power in the whole world—something like 27 million horse power as against Canada's 43 million horse power and the United State's 35 million horse power. Yet we have till today very few factories almost all our trains are run by steam electric light is not known outside the big towns and even in towns only a few people use telephones and radio sets. And, whereas in Norway waterpower provides 700 horse power of electricity for every 1000 people, in Canada it gives 600 horse power, in Switzerland 500 horse power, in the U S A 100 horse power, in India it provides only 1 horse power for every 1000 people.

### **Agricultural Products —**

India grows almost every important crop of the world. It is the sole producer of world's jute, it has the world's largest rice acreage, it is next only to U S A in wheat, barley, and cotton, it produces nearly one-quarter of the world's cane sugar and sesamum, in linseed it yields only to Argentina, it produces more rape-seed than the rest of the world put together, and, except for China, it is the largest tea producer in the world. In addition, it produces maize, gram, *jwar*, *bajra* and a variety of peas and pulses among food crops, mangoes, apples, bananas, oranges, plums, peaches, grapes, guavas, pears, pomegranates, etc, among



fruits; potatoes, turnips, tomatoes, onions, cabbages, cauliflowers, brinjals, carrots, etc., among vegetables, pepper, chillies, ginger, cardamom, and cloves among spices; besides coffee, indigo, tobacco, rubber, and opium.

Yet, it cannot be said that conditions are satisfactory. *Firstly*, these are not quite enough to meet the food requirements of the large population of this country; and, though, we are short of food, we are growing non-food crops, like cotton, jute, and linseed for export. Besides, about one-third of our cultivable land is lying waste. *Secondly*, the average produce per acre in this country compares very unfavourably with that of other countries; e. g., the average yield per acre of grain in the United Kingdom is thrice that in our country—an acre of land in England produces 2000 lbs. of grain in a year, in India it gives only 690lbs. The average produce of sugarcane per acre in Java is 40 tons while it is only 10 tons in India. And only 98lbs of cotton are grown in one acre in India, while U. S. grows 200lbs and Egypt 450lbs in one acre.

*Thirdly*, our raw materials are exported to other countries for the benefit of industries there, while, in many cases, finished commodities are imported into our own country, e. g., oilseeds, tobacco and rubber, are exported, white oil, cigarettes and rubber-goods are imported.

Let us now have an account of the principal crops of India :

**RICE** : Rice is essentially a crop of the damp tropical climate. It is the staple crop in all areas

of heavy and assured rainfall. The provinces which grow rice in large quantities are Bengal, Burma, Bihar and Orissa, the United Provinces, Madras, the Central Provinces, Assam, and Bombay. More than half of the total produce is raised in Bengal. There are many varieties of paddy (unhusked Rice), and the peasants know the conditions of the soil, cultivation, climate, and water supply most suitable for each of the several local varieties. These vary from very fine to very coarse, with numerous intermediate varieties. In Madras, on lands irrigated by canals, three crops are raised in one year. In Bengal there are mainly two harvests. In other parts of India there is only one crop which is *kharif*. The best soil for rice is one of clay of fair depth, that is, soil through which water freely percolates. Burma grows rice mainly for export, while other provinces grow mainly for local consumption.

**WHEAT** Wheat is essentially a crop of the warmer and drier parts of the temperate zone. The limits of its growth are wide, and its varieties are adapted to nearly all climates. In India it is always grown in winter, that is it is a *rabi* crop. The best grains are long, elliptical, and fairly heavy. Almost all parts of India grow wheat, but Northern India, Central India, and Bombay grow it in larger quantities. The best qualities of wheat are grown in the Punjab, Sind, and Central India.

**MILLETS** Millet are of two types, small and big. The latter, e.g., jowar, bajra, is more important. It is grown in Bombay, Madras, the Punjab, the United Provinces and Central Provinces. The

number of varieties of jowar is large. Some grow best as *Kharif* crops. It is used as a food grain in some parts and as fodder over a large part of India. It is a staple *Kharif* crop on black cotton soils where it is grown in rotation with cotton.

**PULSES.** The type is represented by gram. It is grown in the United Provinces (which produces half the total), the Punjab, Bengal, Bombay and the Central Provinces. The area actually sown varies with the character of the late rains. It is always a *rabi* crop and grows extensively on black soil. It is a leguminous crop, and therefore valuable for rotation, restoring nitrogen and vegetable humus to the soil. Gram and other pulses are largely consumed in all parts of India.

**OILSEEDS:** Oil seeds are grown in Bengal, Bombay, the Central Provinces, and Madras. Elsewhere they are grown as a mixed crop. An important crop is linseed, out of which oil is made, and the cakes are used as fodder or manure. It is a *rabi* crop. Sesamum is both a *rabi* and a *kharif* crop. Other oil-seeds are mainly rape seed, castor, ground-nuts, poppy seeds, and cocoa-nut-seeds.

**SUGAR CANE:** Sugar cane is an essentially tropical crop. A very large number of varieties are grown in India. These may be broadly divided into two, viz. (1) thick, juicy, and soft kinds ordinarily requiring liberal cultivation and irrigation and (2) thin, less juicy kinds which require less liberal cultivation and irrigation. Sugar-cane is grown mainly in the United Provinces, Bengal, and the Punjab. It is called a twelve months' crop,

although it stands on the land for ten or eleven months. The planting season is February and March. At one time India used to export sugar. Now India does not do so, but imports considerable quantities. Yet even now India is the largest producer of sugar in the world.

**COTTON:** It is chiefly grown in tropical countries. Indian Cotton is short staple, although successful experiments have been made in the canal zones of Sind and the Punjab to grow long staple cotton. The quality of Indian cotton is low. This is due to the mixing up of seeds and fibres. The chief producers are Bombay, Berar Madras, the Central Provinces, the United Provinces, the Punjab and Central India. The black cotton soil which consists of deep, dense clay is most suitable for growing cotton. One-fourth of India's exports consist of cotton, the greater part of which goes to Japan.

**JUTE:** It is grown in Bengal, Assam and Bihar and Orissa. The soil must be inundated when the plants are growing. Lately there has been degeneration in the jute fibre, but this is due to mal-practices of the trade. It is extensively used in Indian mills, and its export, both raw and part-manufactured, is also large.

**TOBACCO:** It is grown in almost all parts of India, about half of the recorded area being in Bengal. Other important provinces are, Madras, Bombay, Burma, the Punjab, the United Provinces, and Central India. Tobacco grows best on alluvial soils. Two varieties, black and yellow, are grown in India.

**OPIUM.** At one time cultivation of poppy was very wide in Behar, the United Provinces and many Indian States, e. g., Indore, Gwalior, Bhopal, Udaipur, etc. Owing to the stoppage of opium export to China by treaty, poppy cultivation has fallen off considerably.

**TEA.** The first tea plant in India was discovered in Assam in 1821. From the middle of the last century its cultivation has steadily grown. Indian tea has displaced Chinese tea in the English market. Its great rival is Ceylon tea. Tea is cultivated on the hill slopes of the Himalayas and Nilgiri hills, as it requires heavy rainfall, but the water must not stand on the land.

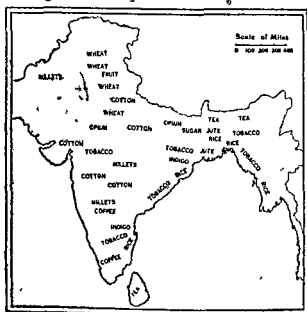
**COFFEE.** Coffee is grown mainly in Mysore, Coorg, Travancore, and some parts of Madras. It requires heavy rainfall and sloping lands, in this respect its requirements being those of tea.

**CINCHONA.** It is a recent product. It grows in Darjilling and Nilgiri hills. It is principally a crop of cool climate. It grows on slopes and at a fair height with plentiful rainfall. Quinine is produced from Cinchona.

**INDIGO.** India has been producing indigo from very early times. At first it was widely grown in Bengal. After severe disputes between the European planters and the people, leading to Rent Act of 1859, the industry migrated to Behar and the United Provinces. It is also grown in Madras and in the Punjab. As a result of the discovery of synthetic dyes, especially in Germany, the industry is declining.

**VEGETABLES.** Vegetables of many varieties are produced in almost all parts of India, and these occupy in the aggregate a substantial portion of the soil.

**FRUITS.** Similarly a great variety of fruits are also cultivated, the type varying with the variation of climatic conditions. From the economic point of view the most important is the mango, next comes *mahua*. Both are used as food, the latter also yielding oil and liquor.



PRINCIPAL CROPS OF INDIA.

### Animal Resources:—

India possesses a large variety of animal life also. The cows and she-buffaloes are used for supplying milk and dairy products. Goats and sheep supply us with milk, mutton and wool, and contribute manure used by the Indian farmer. Bullocks are used in agriculture. Horses are used

for transport. Camels are also used for transport. Then animals are used for the supply of meat in many parts of India.

India's cattle supply is higher than that of many other countries—about 67 per 100 acres. But a large proportion of the cattle are miserably weak and decrepit, and are therefore not of much use for breeding or for work. Though India possesses some best breeds of cattle, too, (e. g. Hariana and Sahiwal of the Punjab, the Thar Parkar and Sindhi of Sindh, etc.), there has occurred a deterioration in the quality of the cattle; and breed of cattle needs to be improved very much.

This survey of our natural resources shows that nature has been very kind to us. We possess vast natural resources. But we have not succeeded in exploiting them to our best advantage. That is why we find poverty in the midst of plenty. What is needed is the proper conservation, development and use of our natural resources.

### QUESTIONS.

1. State what is meant by the term 'land' in Economics. To make your meaning clear, give examples.
2. In what respects is land fundamentally different from other factors of production ?
3. Estimate the importance of land as a factor of production. Is land the same thing as free gifts of nature ?
4. What is meant by the natural resources of a country ? Briefly describe the natural resources of India.
5. "The natural resources of India are very great. What is chiefly required is their proper conservation, development, and

use " Explain the statement particularly with reference to water power, forests, and minerals.

6. Mention the power resources of India and state to what extent they are being utilised at present. How can India's power be increased and distributed more cheaply ?

7. What is the present position with regard to the supply of industrial fuels in India ? What power resources promise good prospects of development in the country ?

8. To what extent is India fitted by Nature for industrialisation ?

From this point of view briefly describe India's natural resources

9. Describe the characteristic soils and climatic conditions of the U. P. How do these affect the economy of the Province ?

10. Consider the importance of forests in the economy of a country. Give an idea of the forest resources of India.

11. Give an account of the principal mineral products of India. Explain their importance, and indicate the regional distribution of each of them.

12. Draw a map of India showing the distribution of principal crops, minerals and modern industries.

---



## CHAPTER 12

### LABOUR

#### What is Labour ?

Labour is also one of the factors of production. In this we consider all efforts of human beings, of body or of mind, which man has to undergo in the production of wealth.

“Labour, in Economics, means any exertion of mind or of body undergone partly or wholly with a view to some good other than the pleasure derived directly from the work.” *Jevons*.

In other words,

“Labour connotes all human effort of body or of mind, which is undertaken in the expectation of reward.” *Thomas*.

*Explanatory Notes:* (1) Only human exertion is labour. Work done by animals is not classed as labour in Economics.

(2) Labour may be manual or physical, or it may be mental or intellectual, or a combination of both kinds. Labourers of the first type—smiths, carpenters, farmers, factory labourers. Labourers of the second type—lawyers, teachers, clerks, statesmen, managers, writers, agents. It may, however, be remembered that there is hardly any work which requires the use of physical force only or which requires the use of mind only for its performance. All work requires both mental and physical exertion—in some the former is greater, in some the latter.

Even the coolie who is a physical labourer uses his mind when he takes luggage from the carriage to the railway compartment. (Why does he keep it in the compartment? Why does he not throw it on the lines? Why does he not keep it in the lavatory?) And the teacher who is a mental labourer, sometimes has to do physical labour, say, he carries registers, or carries copy-books home.

(3) Labour may result in the creation of a commodity such as shoe or needle, or it may involve simply the rendering of a service by one person to another with a view to some reward, e.g., the labour of a domestic servant.

(4) If labour is undertaken for the pleasure of the work itself, it is not labour in Economics, e.g., a musician singing for pleasure, or a man climbing a mountain for pleasure, or a student playing cricket or tennis. But if it is undertaken in the expectation of some reward, measurable in terms of money, it is labour, e.g., a musician who sings for reward, a guide who climbs for reward, or a professional player who plays for reward. Similarly, the activities of congress workers in the election contests, and the activities of sadhus and sanyasis are not economic labour though they may be very laudable, because they are undertaken without any expectation of monetary gain.

(5) The labour of gamblers, thieves and robbers is not considered as labour, these activities being unlawful and unproductive.

### **Productive and Unproductive labour :—**

Early French economists believed that the labour of agriculturists alone was productive. Later on

Adam Smith extended the scope of the term so as to include in it all the labour which is devoted to the production of material objects, though the labour of musicians, teachers, lawyers, etc., was still considered *unproductive*. But modern economists include even the latter in productive labour.

Production today means the creation of utilities and not of material things; for man cannot really produce new matter. He only creates utilities, and it is the creation of utility which determines whether the labour of a particular person is productive. This utility may be in the form of services, too; and there is no reason why the services of merchants, lawyers, doctors, etc., should not be regarded as productive. Even the producers of intoxicating liquors are to be regarded as productive, however harmful these may be; for they satisfy a real want and get a money value in exchange. The persons to be regarded as unproductive are the paupers, thieves, swindlers, etc., because they do not create any utility. They simply try to take things away from others.

We also consider that labour as unproductive which has failed in the attempt to which it was directed, e. g., if 10 men are employed to dig a well but the project is given up when it is half done, because there are no chances of water-supply there, the labour of these 10 men would be considered as unproductive. Similarly, if a ship were constructed and it was found that it could not be made to float, the labour expended upon the construction would be unproductive; again every research scholar does not succeed in inventing new methods or new

machinery, and such wasted labour would be unproductive, too. But this is a conclusion which can be drawn only after the event, and, according to modern economists even this labour is productive, and there is nothing like unproductive labour. A labourer may not ultimately succeed in producing what he wants, but so long as he sticks to his work he gets utilities. He hopes to succeed and this hope sustains him in his work, when he gives up the hope he ceases to work. Again, says *Benham*: "From the stand point of the individual his work is productive if it procures him an income. The question whether a particular kind of work is productive from the standpoint of the community is really a question for social philosophers—not economists."

### Skilled and unskilled labour.

Skilled labour is that exertion of body or mind which a man cannot undertake unless he has some previous training of the occupation, e g, the work of a dentist or a weaver.

Unskilled labour is that which does not require any previous training and to which an average man would adapt himself at a moment's notice, e g, labourers digging earth or felling trees or weeding agricultural fields.

The idea of skilled and unskilled labour is relative to time and place, e g, in India, the labour of a man who has to look after an engine, (railway, or ginning factory) is considered skilled while the same in England, Germany, or Japan is considered as unskilled. Even by people living in Bombay,

Calcutta, or Tatanagar it may be looked upon as unskilled. Then, before printing was known, copyist's labour was looked upon as skilled, but now it is classed as unskilled ( mechanical or routine work ).

*Note:* Sometimes mental labour is spoken of as skilled labour, and physical labour as unskilled. But this distinction is misleading.

### **What determines the labour force of a country:—**

The two main determining factors of a nation's labour force are:—

- (1) Quantity or number.
- (2) Quality or efficiency.

The number of labourers depends on the density, distribution and growth of population in a country. Efficiency depends upon the health and strength of the population, the character, organisation, acquired skill or technical training, education, social customs, habits and institutions of people. Let us consider these in detail below.

### **(a) SIZE AND GROWTH OF POPULATION.—**

The size of the population at any given time mostly depends upon the birth-rate ( i. e., the number of children born annually among a fixed number of people—usually the number of births per thousand per annum ) and the death rate ( i. e., the number of deaths per thousand of population per annum ). The larger the survival rate ( i. e., the difference between birth rate and death rate. ) in a country the more will its population grow. In the case of India we find that both the birth rate and the death rate are the highest in the world, and the population is also very large. And while there has been a

definite downward tendency in western countries in both the birth rate and the death rate, a high birth and high death rate have persisted here.

**Birth-Rate in India :—**The average birth rate in India is about 35 per 1000 of population. It is about the highest rate in the world. The main causes of such a high birth rate are the following: (i) The hot climate of the country leads to early puberty—boys and girls reach the age of maturity very early, while in cold countries they reach the age of maturity later. The result naturally is a higher birth rate. (ii) The influence of religion, customs and traditions is very great in this country—for instance, among Hindus, it is a custom that the girl should be married before she is 16, and early marriages are very common. Another belief is that every Hindu must have a son, and that as early as possible. And even beggars marry in India. All these things lead to a high birth-rate, though it is accompanied by a high death rate, too. In fact, marital relations are not understood by the people. (iii) The poverty of the population is also a contributory factor. It is generally found that the population tends to increase at a faster rate among the poor than among the rich. More children are born in the poor class than among the rich. Poverty makes men reckless. People have no standard of living, and they do not love their material welfare so much as to refuse to set up a new family which will mean a lowering of their standard of living.

**Death-Rate in India :—**The average death rate in India is perhaps the highest in the world. 24 persons in every 1000 die every year in India.

The causes that are responsible for this high death rate are the following: (i) Children born of immature and weak parents must naturally be weak. Early marriage is responsible for a large number of deaths among infants and ladies. (ii) People have no knowledge of the simple laws of health, hygiene, and sanitation. They are superstitious. (iii) There is a lack of dispensaries and hospitals, of medical help and preventive health measures, of good mid-wives and nurses. (iv) People are poor and cannot take sufficient care of the children in the shape of feeding, nursing, etc., etc. (v) The housing conditions are very bad, particularly in industrial centres. (vi) Epidemics are very common. A large number of people die of cholera and small-pox, of malaria and tuberculosis. (vii) Purdah system is common, and there is the habit of drugging the children with opium while mothers are at work, etc., etc.

Two outstanding features of the death rate in India are the high *infant and female mortality*. The rate of infant mortality is the highest in the world—170 per thousand births as against 60 in England, 64 in United States of America, 41 in Australia, and 35 in New Zealand. About one fourth of the babies die before they are one year old, and nearly 45 per cent die before reaching the age of five. Similarly, the death rate among women is very high—100 women out of every 1000 die every year, whereas the female mortality in England is only 4 per 1000.

The result of such high death rates is that the average expectation of life is alarmingly low, being

27 as against 56 in England. This means that an Indian can expect to live on average only upto the age of 27, whereas an English man expects to live upto the age of 50 and a New Zealander upto the age of 65

The *remedy* for this state of affairs, of course lies in better education, higher standard of life smaller population, knowledge of the rules of hygiene and sanitation, establishment of maternity homes and child welfare centres, and an all-out effort to increase the production of the country and the average income of the people. The State can also help by the provision of better housing conditions better sanitation in towns and villages, more hospitals and dispensaries, and more widespread education. Sarda Marriage Act is also a step in the right direction

**VITAL STATISTICS**.—By vital statistics we mean the statement of figures relating to births and deaths in a country, in other words, a record of birth rates, death rates average age, number of deaths resulting from different diseases etc, etc

Here is a record of some birth rates and death rates :—

Country	Birth rate	Death rate
India	35	24
Japan	32	18
England	16	12
U S A	17	11

[ And one thing more to be noted is that while the average birth rate in other countries has declined from decade to decade, e g in England from 32 in



1881-91 to 15.5 in 1931-35, it has remained more or less the same in India.]

Another thing that affects the growth of population in a country is its relation to means of subsistence or food; and in this connection the theory of population by *Malthus* is a contribution to Economics. We shall discuss it in details below :—

### Theory of population by Malthus :—

*Malthus*, a famous English economist showed towards the end of the eighteenth century that the population of a country has a tendency to grow much faster than food supply. Food increases in the Arithmetical Progression—1, 2, 3, 4, 5, 6, 7, 8, 9, 10.....while population tends to increase in Geometrical Progression 1, 2, 4, 8, 16, 32, 64, 128, 256, 512.....and the population of a country, he said, has a tendency to double itself in about 25 years, if it is allowed to grow unchecked.

This tendency towards over-population may be checked either by (1) Positive checks such as war, famine, disease, or by (2) Preventive checks that is moral restraint, late marriage, celibacy (not marrying at all ). *Malthus* said that if the people of a country do not voluntarily check their number ( i.e., use preventive checks ), nature will cut them down by war, disease, famine ( natural or positive checks ).

[ Preventive checks are better than positive checks and in rich and progressive countries like Great Britain, France, etc., these have been used. In poor countries like India and China preventive checks are conspicuous by their absence and

therefore population is kept in check by severe action of positive checks ].

*Note:* The Neo-malthusians reject the preventive checks, and recommend *marriage with Birth control*. *M<sup>r</sup>ushall*, however, says that "people should marry moderately early provided there is sufficient self-control to keep the family within proper limits without violating moral laws."

### **Criticism of the Theory:—**

( i ) It is not true that population always increases in geometrical progression while food supply increases in arithmetical progression. The latter no doubt is subject to the law of diminishing returns, but the theory does not give sufficient attention to the possibilities of increased production by improved methods of agriculture and industrialisation. For example, in the West, production increased much faster than population during the period of industrial revolution and after, when many inventions were made, improved methods of production were introduced, markets were widened owing to facilities of transport and communication, etc., etc.; and Malthus's forebodings proved to be false. Besides, the growth of civilisation, the spread of knowledge of birth control, the spread of female education, etc., have the effect of raising the standard of living of the people, and when this comes about, people are *not likely to marry, unless they are in a position to support themselves, their wives, and their future children, according to their general standard of living in society*. "Whether a baby or a car?", this is the problem for the young couple, and often car wins.

(ii) Every increase of population is not bad and menacing to society. 'The problem of population is not one of mere size but of efficient production and equitable distribution.' *Seligman*. In other words, it is a problem not of numbers alone, but of wealth also and its proper distribution among the people; and a country cannot be said to be over populated unless and until the standard of living of the people in that country, i. e., their material well-being, begins to decline and fall. A larger number does not matter at all, if side by side there is increase in production and justice in distribution. *Cannan* points out that every person born into the world comes not only with a mouth and a stomach, but also with a pair of hands—an increase in population means also an increase in the supply of labour, which may make it possible to secure an increasing return in agriculture and industry. And if this is accompanied by an equitable distribution of wealth in the country, increase of population may not prove to be altogether bad.

(iii) The positive checks to population are preceded by biological and psychological checks. With an increase in population the birth-rate declines. Besides, increased population intensifies competition and hence the opportunities of a sexual life are reduced. Congested housing conditions also mean a loss of privacy and less opportunities of a sexual life; and thus decline in natality, rather than increase in mortality due to positive checks, which *Malthus* feared, may keep the population in equilibrium density.

The modern view on the theory of population is that the population of a country should be regulated with reference to a country's resources. It must neither be too large nor too small, it must be of the 'optimum' size. (*Cannan*). [ 'The 'optimum' point of population is one below or beyond which any decrease or increase of population would be injurious to the interests of the country as a whole. It is the point of maximum return. It is that population which provides the greatest real income of commodities and services per head ] An increase or decrease in the size of the population above or below this point will diminish the real income of the community. For example, in the countries of Europe and America, though the density of population per square mile has increased manifold and much more than that of India, still they have maintained their high standard of living, because of their increased national wealth or income per capita. Hence they cannot be said to be overpopulated. But in India though the density per square mile is much less than that of Europe or America still the amount of national wealth or income per capita is so small that the standard of living in India is much lower than in those countries, and India is said to be overpopulated.

[ In other words, if the population is not large enough to utilise all the natural resources of the country and hence does not get the maximum return, then it requires an increase, and the country is said to be underpopulated, while if the population increases without proportionate increase in wealth, the country is said to be overpopulated.

and a decrease in population or an increase in wealth is called for. ]

The optimum population is, of course, changing from place to place and from time to time. For example, in U. S. A., Australia and Canada, labour is scarce yet, and population is below the optimum point, while in India there are signs of over-population—high birth-rate and death-rate, low average of age and low income per head—and population is said to be above the optimum point. And what is optimum for a country today may not be optimum tomorrow. With the growth of knowledge, with the progress of scientific inventions, the optimum size changes.

**Case of India.** The population here, judging from any test whatsoever, is increasing at an alarming rate, with the result that there is misery and starvation all round, the birth-rates and death-rates are exceedingly high, the expectation of life is very low—only 25 years, as compared with 54 in Great Britain, and the income per head of population is perhaps lower than in any other important country of the world.

But from this it cannot necessarily be concluded that a check to the growth of population alone can abolish or mitigate poverty or do away with the evil of over-population. Poverty is very often the result of inefficient production and a bad organisation of the labour population, and in such cases the remedy is to be sought in other directions. For example, India may be over-populated. But considering the economic potentialities of India,

one may hope that the future is not all darkness. Besides, as we have seen above, it is not only a question of mere productive efficiency but of equitable distribution of the existing and potential resources, i. e., of a better division of wealth among the people. The following remedies are suggested:—

( i ) Education—the greater the education, the more will people feel their responsibility, and the more will they try to keep up their standard of living.

( ii ) Agricultural and industrial development of the country, which will help in increasing the total wealth of the country and thus raising the income of its people.

( iii ) Better distribution of wealth. At present the few have a great deal, the many very little, and there is great inequality of wealth.

( iv ) Scientific birth-control.

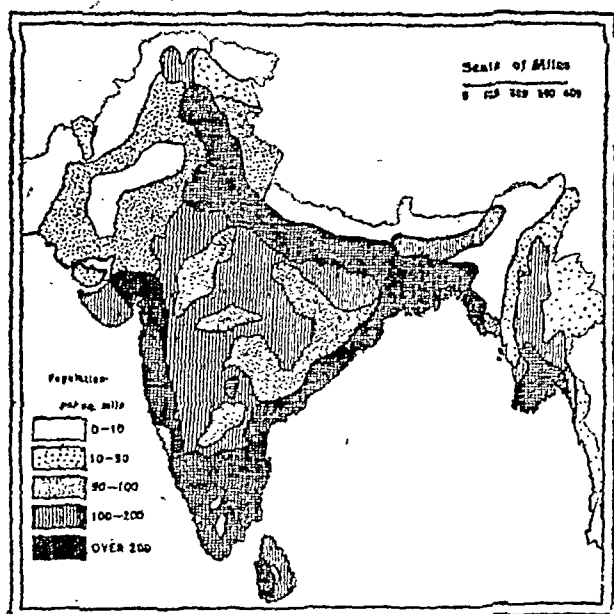
( v ) Direct progressive taxation, graduated according to the number of children produced.

( vi ) Marriage licence—No person should be allowed to marry except under a licence obtained from the Government, the licence to be granted to those who are physically fit and are earning enough to support a family of an average size in future, and in no case to persons below 21 in the case of males and 18 in the case of females, etc., etc. In the United States, in the State of Nebraska, marriage is forbidden to any one suffering from a venereal disease, and Connecticut forbids the marriage of epileptic and feeble-minded persons. Montana provides for the compulsory sterilization of idiots,

epileptics, and feeble-minded and insane persons. India should forbid the marriage of all who are poor and cannot keep up a standard of living.

### Density and distribution of population in India.—

By density of population is meant the number of people inhabiting the country per square mile of area. It is great, if the average number of inhabitants living per square mile is large; it is small, if the average number of inhabitants living per square mile is small. The map given below shows



DENSITY OF POPULATION IN INDIA

the density of population in the various parts of India. India is not evenly populated. Population is densest in the U. P. and Bengal, and thinnest in such regions as are mountainous, overgrown with jungles or covered with deserts. For example, the density of population in Bengal is 700, in the

United Provinces 600, in Assam 150, and in Rajputana and Sindh about 95

Here is a table showing the densities of population in some important countries of the world :—

Belgium	700
England and Wales	700
Japan	250
U. S. A.	45
India	250

And the following table gives the comparative density in the different parts of India :—

Delhi	1753
Bengal	727
Bihar	524
U. P.	490
Madras	397
Bombay	270
Punjab	270
Burma	267
Sindh	97
Baluchistan	9

#### **Causes of Variations in Density :—** ✕

The following are the *causes* of the variations in density .—

India is an agricultural country and, therefore the density of population depends upon (i) *the fertility of soil, climate and rainfall* more than upon anything else. The population is thickest where the soil is more fertile and the rainfall is sufficient. The well-watered areas of the Indo Gangetic plain and the coast strips are the most thickly populated parts of India, while the dry areas of Baluchistan and Rajputana desert are scarcely populated. Of



course, climate also plays a part, e. g., the Brahmaputra valley is thinly populated in spite of heavy rainfall because it contains mountains and jungles and its climate is unhealthy.

( ii ) *The agricultural water supply*, either natural or artificial is another determining factor in the distribution of population. Areas in which the rainfall is more or less than is desired are thinly populated, while areas which have optimum conditions are thickly populated. Similarly, irrigation has influence on the density of population. Canals can turn arid lands like Sindh and the Punjab into fertile soil, and the Canal Colonies of the Punjab, furnish an example of how the density of population can increase.

( iii ) *Facilities of transport*. If cheap and rapid means of communication are available, population tends to move there; whereas places which have no railway stations, etc., are generally thinly populated.

( iv ) *Industrial Development*. Development of manufacturing industries brings about a concentration of population as nothing else does. Calcutta, Bombay, Cawnpore, Jamshedpur and Ahamadabad have grown populous in this way. The same is the result when trade and commerce develop in any part of the country. Working of coal mines and the tea plantations in Assam have had a similar effect, too.

( v ) *Historical Causes*. Many places have grown populous because they were centres of culture and civilization once. Delhi, Lucknow, Benares, Agra,

Allahabad, Patna, etc., grew like that (Many of these are now declining in prosperity)

(vi) *Peace and settled Government* are also essential conditions for the growth of population. Where there is no security of life and property population is generally thin.

(vii) Finally, the diversities in the density of population are also to some extent due to *the stay at home habits of the people* and the other difficulties in the way of free migration from one part to another.

NOTE—A high density of population does not necessarily mean that the country is over-populated, or that the standard of living of the people is low. This will depend upon the natural resources and the skill and the economic stage of the people. For example, in agriculture, each worker requires a much larger area of land to sustain him, and keep up a high standard of living, and consequently a high density depending mainly on agriculture as in Bengal and the United Provinces does mean pressure and low standard of living. But equal or even greater density in England and Belgium is supported at a fairly high standard of life, due to the development of mining and manufactures, in which a comparatively larger quantity of wealth and of higher value can be produced in a given area.

**Distribution of population in town and country —**

The population of India is mainly rural, 89% living in villages and 11% in towns, while in England 89% live in towns and in U S A. 52%, in France 50% and in Germany 46%.

# RURAL 90 PERCENT

URBAN

## RURAL AND URBAN POPULATION

### Vocational Distribution of Population.—

*Occupations of the people :* India is essentially an agricultural country, and agriculture supports 67% of the total population, while industries support only about 10%. Trade engages 5.4% of the population, transport 1.5%,

AGRICULTURE  
67%

INDUSTRY AND MINERAL  
9.8%

TRADE AND TRANSPORT  
5.4% 1.5%

MISCELLANEOUS  
13.5%

Thus the percentage of people engaged in agriculture is very high, while the percentage of people engaged in mining and industry, and, trade and transport, is very low. In Great Britain, agriculture supports only 11.6%, in Germany 28.6%, in U. S. A. 26.3%, and in France 40.7%; while mining and industry, and, trade and transport, support 70% in Great Britain, 56% in Germany, 51% in U. S. A. and 46% in France.

Evidently, India is industrially very backward. It is "under-industrial" and "over-agricultural" and needs industrialisation.

PUBLIC FORCE 5%  
PUBLIC ADMINISTRATION 8%  
PROFESSIONS AND LIBERAL ARTS 17%

## (b) EFFICIENCY OF LABOUR

The question of the efficiency of labour resolves itself into two parts: (a) What factors contribute to the personal efficiency of labour? (b) How does the employer contribute to the efficiency of labour?

*I The factors which contribute to the personal efficiency of labourers —*

Personal efficiency of labour depends upon two things: (1) the power or fitness to work and (2) the will to work

A Power or Fitness to work This is of four kinds:

(a) Physical Fitness —

Man's capacity for work depends upon his physical fitness or his health and strength, and these depend upon:— (1) Climate and physical conditions The climate of a country influences the efficiency of the labourers very much. In very hot countries people find it difficult to work for a long time. In temperate regions people are more energetic. (2) Racial characteristics Health and strength of the people also depend upon their race and training, e.g. the Sikhs, Pathans and Punjabees are physically strong while the Bengalis are mentally strong. A Jat is a better cultivator than the Rajput, a Marwari or a Vaish better tradesman than others, and a Rajput or Pathan or Gurkha a better warrior than others. The idea of race superiority is, however, being gradually exploded. (3) Quality and amount of food and shelter We have a steam engine theory. The more fuel is added in the fire box, the more is the steam that is produced. Similarly, the more the labourer is fed, the stronger will he become. Good

work cannot be expected of labourers who are ill-fed, insufficiently clothed and poorly sheltered. The standard of living of the Indian labourers is abnormally low : millions of people are under-fed and under-clothed; their food is not nourishing enough, etc., etc. The result is that they have not the vitality to resist disease nor the energy to work

(b) Intellectual Fitness :—

This is as essential as physical fitness, and this comes through general education. Education enlarges the labourers' mental outlook, gives them higher standard of life and conduct, and tends to make them more intelligent and resourceful. It improves their economic efficiency, stimulates them to invention, etc., etc. For example, education is backward in India and the efficiency of labourers is also low in India, while education is compulsory in other countries and efficiency is also high there.

(c) Technical Fitness :—

General education is not intended to fit a man for a particular job which requires a special kind of training. For this technical training is necessary, and it has acquired a great importance in modern industry. Hereditary skill, e. g., that which is found in Chamars, Banyas, potters, etc., in India is not enough. Practical training has to be given in technical schools, colleges, and workshops under proper supervision.

(d) Moral Fitness :—

Good moral character is another factor which determines the efficiency of a worker. A worker who feels his responsibility, who has a sense of duty and works hard in the absence of his boss, who

takes interest in his task and possesses the qualities of honesty, perseverance, etc., must certainly make an efficient labourer.

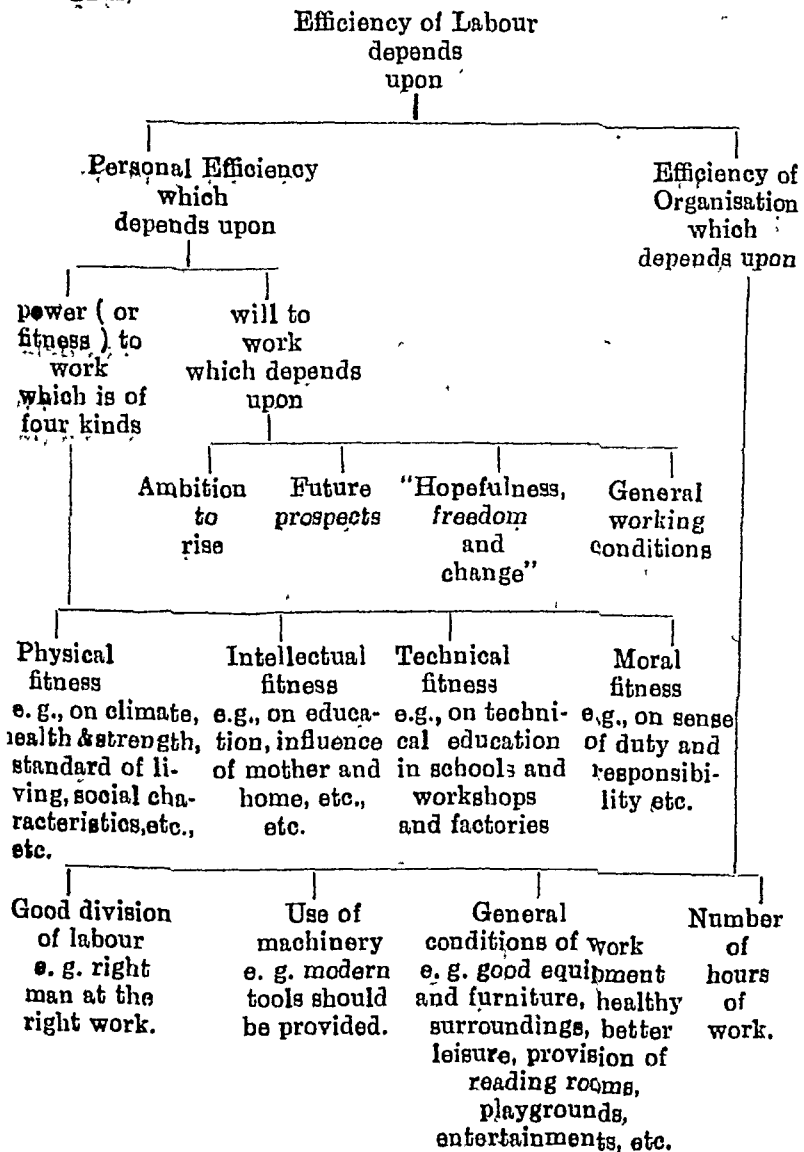
B. The will to work. Efficiency also depends upon the fact of the labourer being a willing worker. The labourer must possess the ambition to raise himself in the world. The prospect of rapid promotion, of higher wages to be earned in the near future, must be there to fire his ambition and spur him on to greater efforts. "Hopefulness, freedom, and change" must be there. The work must be consistent uninterrupted work. The general working conditions must be satisfactory. Without these the labourer cannot work willingly and, therefore, cannot put in his best effort.

*II. The way the employer contributes to the efficiency of labourers :—*

The employer can also contribute to the efficiency of workers in different ways. If he possesses an organising capacity, he will bring out the best in the labourers, otherwise not. That is to say, if he can organise the business in such a way that the right man is at the right work, and has the right material near him at the right time, he can surely add much to the efficiency. Efficiency of labour depends upon the general organisation of work, e. g., upon the efficiency of the other factors of production, and the way they are combined together, upon the organisation of division of labour, the use of machines and the inducement of better conditions of work ( comfortable furniture, better leisure, extra reward ) etc., etc. It also depends upon the number of hours the labourers have to work. Reduction in

the hours of work reduces the industrial fatigue; and similarly a system of rest pauses adds to efficiency. For example, Henry Ford reduced the hours of work to 7 hours per day and created a regular motor service for workers. The result was that their efficiency improved.

Thus,

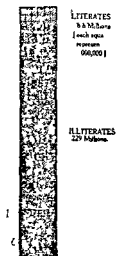


## Position of Indian labour—causes and remedies for its inefficiency —

(a) Indian labourers are not sufficiently healthy or strong. This is due to bad habits and customs, rather than to climate, heredity, etc. Labourers are not properly brought up. Marriages take place at very early ages. Large sums are wasted on religious and social ceremonies instead of on better food and higher standard of life. The system of early marriages should be stopped, training should be given in sanitation and hygiene, wholesome food should be taken, and the standard of living should be raised by reducing the expenditure on marriages, etc., and spending money in more proper channels.

(b) The illiteracy of Indian labourers is colossal. Only 8% of the people are literate in India, while in all advanced countries of the world, there are hardly a few illiterate persons to be met with.

The following diagram gives an idea of the colossal ignorance of the people of India —





Some people put the percentage of literacy in India at 12, and in other countries of the world round about 80.

Labourers also have no or little opportunities for receiving proper technical education, whether it is in technical industrial schools, in workshops and factories, or in foreign countries as students and research scholars. They are not even conscientious and honest. They have no sense of duty, and would not work unless watched carefully by the manager. They work simply to 'please the eye' of the master. They are not self-reliant or self-respecting. This state of affairs can be removed only by education of all kinds, elementary and general, technical and industrial, moral and spiritual. As things are, about Rs 33 / 2 / per head of population were spent from public funds on education in great Britain, while the comparative figures for India are -/8/9 per head.

(c) Organisation of the workshop and the factory is also far from satisfactory. The amenities of life provided in the factories are few and far between, while factory and sanitary conditions are not quite satisfactory. Lighting, heating, ventilation, smoke, colour, noise, atmosphere and sanitation act directly upon the health, vigour, vivacity and temper of the worker, and if these are not accompanied by rest and leisure, provision of pure water and healthy surroundings, etc., etc. labourers are sure to become inefficient. Healthy surroundings, sufficient ventilation, greater leisure, arrangement for education and exercise, libraries and reading-rooms, etc., etc., should be provided to them. Lack of suitable housing

accommodation in congested mill areas under conditions that often are far from healthy also seriously react upon the health and vigour of the worker and his efficiency. Something must be done to improve the housing conditions in industrial towns.

(d) Indian labourers have also to work for long hours, without sufficient rest intervening, and this is another cause for their inefficiency as is clear from the example of HENRY FORD taken above. They must be provided shorter hours and more leisure.

(e) Other characteristics of Indian labourers are:—(1) They work for half the year in the fields and for the other half in the factories, with the result that they are jack of all trades and master of none. (2) They are a set of contented people, and surely 'contentment spells decay'. As soon as they make some money they think of retiring from work, for they lack ambition and have a deplorably low standard of living. Of course, poverty is responsible for this; but there should be less of reliance on fate or Kismet, and everything should be done to improve the productive capacity and efficiency. (3) They work to please the eye of the master and require constant supervision. They must have a greater sense of duty.

In short, labour in India is inefficient, and to remove this inefficiency, the labourers must be given education of all kinds, their standard of living must be raised and a spirit of ambition created among them, cooperative societies in all fields must be started, and conditions of work and life must be improved.

### QUESTIONS.

1. On what does the efficiency of labour depend ? Do you think labour in India is efficient ?

2. What are the chief causes of the inefficiency of Indian labour ? What remedies would you suggest ?

3. State the theory of population enunciated by *Malthus*. How far is it applicable to modern India ?

4. What do you understand by infantile mortality ? Examine the causes of the high infantile mortality rate in India. Suggest measures to check this evil.

5. India presents examples of very high and very low densities of population. Explain the factors that account for these wide differences. Do you agree with those who maintain that India is over-populated ? Give reasons for your answer.

6. Give an idea of the vocational distribution of population in India. Has it any effect on the distribution of population between the town and the country ?

7. Write short notes on:—

(a) Productive and unproductive labour;

(b) Positive and preventive checks;

and (c) Vital statistics.

---

## CHAPTER 13

### CAPITAL

#### What is Capital —

Wealth may be kept either for the direct use of its owner at once or at a future time, or the owner may abstain from using it for himself, and keep it for further production. When wealth is used in the former way it is called consumption wealth, when it is used in the latter way it is called capital. In other words, when wealth is used directly by its owner, and in the present, it is consumption wealth, and when this use is postponed so that in future it will help him in producing other economic goods it is called capital. Suppose a farmer grows corn on his fields. He does not consume all of it at once. He puts off a part of it to be used as seed at some future time. This seed when sown yields him further crop. It is known as Capital. The corn that was eaten was not capital though it was wealth. It was only consumption wealth.

In primitive stage man gets things from nature without the help of capital, but with the growth of industrial civilisation he requires the help of capital. Even hunting and fishing can be done better by weapons (capital). So men save the product of their labour on land, and use it as capital. For example, a grass cutter cuts grass and sells it. He earns -/8/- a day, but out of this he saves -/4/ a day, and, when he has 1/0/0 with him, he buys a sickle and is able to cut more grass and easily, and thus

he begins to earn more. This further earning is the result of the use of capital (sickle) which is the result of his past effort, but is now used for the production of more wealth and not for direct consumption.

Thus capital has been defined as "*that wealth (other than land) which is used or (is intended to be used) for the production of more wealth (and not for direct consumption)*", or as "property which is the product of past labour, but which is used as a means to future production". Says THOMAS: "Capital forms part of that wealth of individuals and communities, other than land, which is used to assist in the further production of wealth such as tools, implements, machinery, seed, raw material, and transport instruments such as roads, railways canals, etc."

*Note:* A thing may be merely wealth at one time and capital for another and may be wealth for one person and capital for another. Thus, a motor car with a wealthy person is wealth which he uses for his trips; but when it is sold to a doctor who uses it in paying visits to his patients it becomes capital. It helps him to make a large income, because with it he can see a larger number of patients. The doctor's motor-car also, if he uses it for going to see a friend, is wealth, though, if he goes on a professional visit, it is capital. A chair in a room is wealth so long as it is used by the owner, but as soon as it is given out on hire to some body, it becomes capital. When a person goes in a railway train for business, it is capital, when he goes to see

only the Taj or some match, or some drama or film, it is only wealth. Similarly, money hoarded is not capital, but money deposited in banks is capital when it is lent by the banks on interest for productive purposes. All money is wealth but all money is not capital. Money becomes capital only when it is used as a source of income. "A diamond in the hands of a jeweller or a glazier, flowers in the possession of a florist, a clown's costume owned by a theatrical director, all become capital because they are instruments of production." *Gide*. Wealth and capital are thus distinguished in this, that capital is an agent of production, whereas wealth is the result of production. All capital is wealth but all wealth is not capital, only that wealth which is used as an agent of further production is capital.

BENHAM, however, slightly differs. He does not confine the use of the term capital to the means of production, such as factories and machinery, and railways and canals, or to the raw materials which are in the course of being transformed into fixed commodities, or to the stocks of consumers' goods held by producers and shop-keepers. He thinks that even consumers' goods in the hands of consumers—e.g., house, motor-car, etc.—are to be included in capital, which means the stock of goods of all kinds existing at a given moment. His argument is that a consumer may at any moment decide to let a portion of his house, or to hire out his private car. [Some other writers call consumers as consumers' capital merely]

This, however, means that every thing is capital. Is there then no activity that can be called consumption? A compromise would be to consider that wealth which is *mainly* capital as capital, and that wealth which is *mainly* consumption goods as consumption goods.

## Is Land Capital ?

The question arises, is the plot of land used by the farmer for agriculture, capital, for it is used for further production? The answer is that it is not, because we have already decided to class all these things which are the gifts of nature and whose supply is beyond the control of man as land—*cf.*, “other than land” in the definition. We should give the name capital only to those forms of wealth which owe their usefulness to human labour. And after all, this distinction between land and capital is scientific. Land is the free gift of nature, the amount of which is limited and it is beyond human power to increase its quantity. But with capital it is otherwise; it can be produced and reproduced so as to meet increased demand. As a general rule, capital must be repaired and replaced but land does not wear out and needs no replacement. So land is not included in capital.

However, some people argue, on the other hand that it is function and not origin which matters when we consider the extent to which man is aided in production by his environment: a canal may be just as useful as a river. Besides, it is almost impossible in practice to distinguish between original gifts of nature and improvements made by man.

Perhaps the best solution, in words of BENHAM, is to admit that logically we should include land in our concept of capital but to urge that it is such an important category of capital that it is convenient to follow the usual practice of treating it separately.

[ From the point of view of an individual cultivator or landlord who rents land to other people for money the plot of land may be capital to that particular individual because it yields an income to him ; but from the point of view of society it is not

capital and this is the correct point of view ] as it does not secure any additional wealth to the society as a plough or a machine does. So there is nothing to prevent an individual from regarding land as capital. To him it is as much capital as machinery ]

### Importance of capital—

In the primitive stage man got things from nature with little or no assistance from capital, but with the growth of industrial civilisation he requires the help of more and more capital to increase production. Without capital agricultural soil cannot be improved, and raw materials cannot be obtained, labourers cannot have tools and machinery, canals, and irrigation cannot be within reach, means of transport and communication cannot be developed, and in short manufacturing industries cannot prosper. What would a cultivator do, if he had no plough, no barrow to till his land? What would an industrialist do without raw materials and machinery? Surely a man can produce larger quantities of yarn with a spinning machine than with a charkha, a weaver can turn out larger quantities of cloth with a modern weaving machinery, than with his primitive weaving tools. It can safely be said that nowadays capital is an important agent of production. It enables production to be carried on efficiently by assisting labour in different ways. Thus a grass-cutter has his reaping hook, a sweeper his broom, a water carrier his skin, a fisherman his net and fishing rod, an agriculturist his plough and an artisan his tools and machinery. Capital is extensively used to day in the form of plants and machinery, roads, bridges, and embankment, canals, railways, steamships and aeroplanes,



etc., etc. In fact, the economic progress of a country today depends, to a very large extent, on the amount of capital it possesses.

### **Forms of Capital.—**

Capital has been commonly classified into fixed and circulating capital. Fixed capital is that which is capable of rendering repeated services, or, in other words, which can be used over and over again in several processes of production at different times, e.g. machinery, tools, engines, building and furniture. Circulating capital is that which is consumed in a single use or can perform service only once. It is so called because that amount of capital is to be deposited again and again; for example, cotton which is used in the manufacture of cloth can be utilized only once and cannot serve that purpose again. Other examples of circulating capital are raw materials, seeds, coal, oil, wages given to labourers or means of subsistence provided to them.

In the primitive stage of industry when work was mostly done by manual labour with the help of only simple tools, the expenditure on machinery and buildings etc. was small, and the bulk of the expenditure was on raw materials. That is to say, in that stage circulating capital was more important than fixed capital. But, as a result of scientific inventions and the greater use of steam and electric power, complicated machinery plays an important part in modern times, and, therefore, the importance of fixed capital has very much increased. In fact a considerable portion of our social wealth is invested today in the production of fixed capital, or what are known as 'Capital goods'.

[ Money which is used productively is called capital articles, like factories and machinery, which are used productively are called Capital goods. For instance if a man invests Rs 5000 in the construction of a factory the factory is his capital goods, while the amount of Rs 5 000 invested is his capital ]

The following table will clearly bring out the distinction between fixed capital and circulating capital, and between production capital and consumption capital

		Fixed Capital	
Production Capital	Factory buildings boilers engines looms spindles, other tools		Bicycles shoes, Clothing furniture dwelling houses
	Coal cotton yarn other raw materials		Food and drink fire wood expenses on cinema
		Circulating Capital	
		Consumption Capital	

### Growth (or accumulation) of Capital —

Capital is the result of saving. Man does not spend all the wealth that comes into his possession as a result of his labour, but puts some of it aside for future use. This wealth that he puts aside for future use is his saving, and on the amount of saving in a country depends the amount of its capital. This saving, in its turn, depends upon the following factors:—

(1) Essential condition: there must be the power or ability to save —

i.e., there must be a surplus above necessities of life. This depends upon all those things that increase the productive capacity of the country: natural resources, efficiency of labour and capital,

means of transportation and communication, foreign trade, system of credit and public finance, etc., etc. That country which produces a larger quantity of wealth makes it possible for its people to save more also, e. g., England and America produce more, and the people there earn more, and, therefore, can save more, while India, in spite of her rich natural resources, produces a smaller quantity of wealth and Indians can save little, too. The average income of people in India is only a little over Rs. 100/- per year. This income is very low and is hardly sufficient to enable people to make both ends meet; and, therefore, they cannot save much.

## (2) Subjective ( mental ) conditions :

*There must be the will to save.*

(a) *The habit of realising the future, and providing for it.* Foresight is a condition for saving; e. g., the savage has no foresight and does not save, whereas civilised people like to make provision for old age, children's education etc., and, therefore, save. *The desire for power and distinction*, which money brings, and which is growing with the growth of civilisation, is no less strong incentive to save—in many cases people save only in order to be considered rich and wealthy. In the United States and Great Britain this motive is especially prominent.

(b) *The motive of family affection* is also a condition—where family affection is great, the desire to save something for the family is strong, e. g., in India many people save out of a desire to leave behind a large legacy to their sons. [ It is another thing if other factors come in the way of the growth of capital in India. ]

**(3) Objective conditions :—**

Besides the above-mentioned subjective (mental) conditions there must be such external conditions for saving as the following:—

(a) *Security of life and property.* Every person who keeps aside a part of his income, should have a reasonable chance of his savings being enjoyed by himself or by his children in the future; and in a state of order where life and property are insecure, people would not be inclined to save. Thus, in olden days there was less security of life and property, and, therefore, people had no will to save. Now they have greater security, since the establishment of the British rule, and they save more, too, though they cannot save as much as people in other countries do, for different reasons.

(b) *Opportunities for safe investment, and good returns* :—Banks, insurance companies and co-operative credit societies encourage the saving habit among the people. Unfortunately the number of such institutions in India is too inadequate for an extensive country. No such credit institutions exist in the villages and even big towns have not got them in many cases. In order that there may be greater savings, the number of banks in the country must be larger.

[ For relationship between capital and the rate of interest, read chapter 14 on Interest. ]

There must also be a field for enterprise. That is to say, if there are various industries in which investment is likely to bring high returns, people would like to save more, and there would be more

capital forthcoming. For this, it is necessary that there must be good organisation in the country, and the number of sound joint stock companies, etc., must multiply.

Again, the role of custom in the growth of wealth, especially in the primitive communities, is very important. For example, social customs in India demand expensive feasts in marriages and shradhs, and so the poor Indian ryot has no surplus to save. Such customs and such expenses must be put an end to.

### **Growth of Capital in India—**

We have seen above that as regards the subjective conditions, family affection is nowhere stronger than in India. The upper and middle classes possess sufficient foresight also, but it is absent among the poor classes. As regards objective conditions, too, we enjoy at present sufficient security of life and property, and the number of banks and joint stock companies is also multiplying gradually. But the essential factor that there must be a surplus above necessities of life is absent in the Indian peasantry who form three-fourths of the Indian population. The agriculturist's power to save is extremely limited. The result naturally is that **the growth of capital has been very slow in India, and not at all proportionate to the potential wealth of India.** For example, the source of power used by the agriculturists consists of ill-fed and ill-housed cattle, the implements are all cheap and of the simplest, crudest and of the most inefficient type. The total value of the implements used by many Indian cultivators

comes to Rs. 30/- or Rs. 40/-. This is nothing as compared with the expenditure on implements in the West. The condition of the farmers has no doubt improved very much during the present world war—They have not only been able to wipe off some of their old debts, but have been able to save something for future use. Industries also suffer equally from lack of capital. Most of the large-scale industries in India are financed by foreign capital, e. g., jute and mining and planting industries are almost entirely owned by foreign capital. Foreigners have also invested their money in railways, tramways, banking, navigation, etc., Recently, Bata's have started a shoe factory in India Swedish people have started a match factory, and the Lever Brothers Limited a soap factory; so on, and so forth. There is nothing much wrong with foreign capital, but the fact remains that there is a paucity of capital in India, and so long as our savings and capital do not increase, we cannot have agricultural or industrial prosperity in the country—capital is the life-blood of industry.

*Note :* The hoarded wealth of India is proverbial, but there does not seem to be much truth in the statement. Capital is said to be shy in India; but this also is not true, now at any rate. The investments in the cotton mills at Bombay and Ahmedabad, in the Tata Iron Works at Jamshedpur, in the hosiery factories in the Punjab, and in the government loans during the present world war etc., etc., show that Indians are willing to invest capital in various enterprises, but being poor people, they are not able to save much capital for investment.

**Machinery.—**

The most important form of capital in modern times is machinery.

**Advantages of Machinery :—**

(1) It increases man's power and command over nature. Railways, steamships, aeroplanes, telegraphs, radios, etc., are examples of how man has harnessed the forces of nature into his service. We can do so many things today with the help of machinery which we could never dream of before. Steam and electricity have already worked wonders; and we are now talking of harnessing "atomic energy" into our service.

(2) It relieves strain on human muscles, e.g., cranes, pulleys, electric lifts, etc., can lift weight, very easily. For example, when a ship is loaded or unloaded even huge elephants can be easily lifted up by a crane into or out of the ship. This could not be easily done simply by human effort. A few years ago, in Sweden, experiments were being made to see if things would go quickly if the soil was warmed by passing an electric current through it by means of an underground cable.

(3) It takes over monotonous work and relieves the tiresomeness of labour, e.g., folding of newspapers if done by hand is very monotonous, but it is now done by machine.

(4) It can do work much faster than man and far more accurately, e.g., a newspaper press can print, fold and count 80,000 sixteen pages paper in one hour; a watch factory can turn out 25,000 watches in a year, and one man can make 15 million

pins in a day etc , etc Similarly, a motor tractor can plough five acres of land in a day where a man and a horse ( or bullock ) can plough only one, and so on Examples of greater accuracy are watches, balances, etc.

(5) It weakens the barrier between different trades—the passage of man from one trade to another becomes easy A person who has worked on one kind of machine, can work on a machine producing another kind of goods, for machines are more or less alike

(6) The system of 'interchangeable parts', and standardised production are made possible with the help of machinery, for it can make exactly similar articles of the same class, and we find to-day that all parts of watches, cycles, motor cars, etc , can be had in the market, and be fitted anywhere. If the handle or paddle of a cycle is broken, another can be cheaply got and fitted This perfect uniformity is not possible in hand-made goods

(7) The costs are lowered by machinery—machine-made articles can be sold at a much cheaper rate. For example, newspapers can be sold to-day at one anna each, dozens of pins can be had for a pice, and a bicycle can be had for only twenty rupees ( During the present war, no doubt, prices are higher, but that is only a passing phase ). Could this be possible without the use of machinery ?

(8) The demand for general intelligence is increased , workers have to be more intelligent and resourceful. The agricultural labourer who uses a



motor plough and an oil-engine is generally quicker-witted than he who has toiled always with a hand-plough and harrow. The industrial labourer working in a cotton mill at Bombay is generally more intelligent than the village weaver or the village spinner.

(9) More leisure and wider interests are afforded to the labourers, on account of reduced hours of work; and they can take part in many nobler activities—religious, social, political and cultural.

### **Disadvantages of Machinery :—**

(1) By the help of machinery a given amount of work is done in much shorter time than by hand, and labourers have thus gained many advantages, but machinery has given rise to unemployment. The work which required 10 men, say, can be accomplished by one man with the help of machinery, thus throwing 9 men out of work e. g. a spinning mule with the help of the tender can produce spinned cotton in a day's time originally produced by a thousand men.

This is not, however, the correct view. The use of machinery does not mean less demand for labour. Cheapened goods result in increased demand and more varied consumption. Some labourers are required for the making of machinery, too. Anyway, there is greater demand for labour to-day than there was in any previous age.

(2) Machinery undermines health and shortens life. Nervous strain from the noise in its operation is a great defect of machinery. If we go inside a mill when it is working, we find the noise so

great that we cannot stand there for even a few minutes. The labourers in the mill have to bear it day in day out, and this cannot fail to have its effect on their health and longevity. Besides the use of machinery intensifies labour and sets by the ever-increasing speed of a machine a hotter and hotter pace for the labourer, for in the days before the coming of power-driven machinery the speed with which a man worked was largely his own affair, while with the coming of the machine the pace of work is determined less by the individual worker and more by the speed of the machine itself—machines have become the master of man. It is only the young workers who can stand the strain of new industrialism, and even they do not live up to their full age, as a result of the physical, mental and nervous strain caused by mechanisation of industry.

(ii) It is also said that the use of machinery is responsible for the filthy and immoral surroundings in the industrial towns—the unboly, unhealthy lives of the workers, wine and prostitutes in the absence of wives, and contagious diseases that follow. This is because housing accommodation is lacking, and labourers have to live away from their homes and families. MAHATMA GANDHI says “Machinery represents a sin”

(iii) The use of machinery also widens the gulf between the poor labouring class and the rich employers, and while the capitalists have grown richer and richer, labourers' position has gone on becoming worse and they are entirely dependent upon the capitalists.

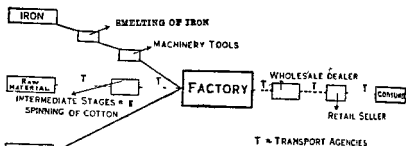
(iv) Machinery leads us on to capitalism. It makes rich people richer and poor people poorer—wealth concentrates in a few hands. This is a great social defect.

Evidently, evils of machinery are not due to the machinery itself, but to the improper conditions under which it is worked by capitalist employers. Our endeavour should be to improve the general conditions of work for the benefit of the labourers, and at the same time to modify the capitalistic system for the benefit of the society as a whole, which system no doubt tends towards making rich people richer and poor people poorer. **Machines are good in as much as they improve production and increase the wealth of the nation.** But if wealth is earned at the cost of peoples' health and vitality, and if all the wealth is concentrated in a few hands, it cannot be said to promote general social welfare, even if we do not take into consideration the unemployment that the use of machinery brings in its train.

### **Means of Transport and Communication.—**

A good system of transport is of very great importance for the prosperity of a nation or a country. An industry consists really in moving materials from one place to another; and production is nothing but a movement of things, as one writer has said. Without cheap transport we can neither have large-scale production and localization nor wide and extensive markets.

The following chart from PENSON gives an idea of the important part played by transport in the industrial process of today:—



We see here that without transport neither raw materials, source of power and machinery can be got in the factory to make production possible, nor the goods made in the factory can find a market and reach the consumer.

**Means of transport enable us**

(a) to link Indian grain fields to the towns within the country itself and to the whole world, as a matter of fact. This raises the prices of agricultural crops and enables the Indian farmers to grow crops like cotton, jute, and tea, on a commercial basis; and thus *localisation of crops* is the result, e.g., jute cultivation in Bengal, wheat cultivation in the Punjab and U. P. etc.,

(b) to make raw materials, coal and iron accessible to our industries, and to provide easy markets for the products of these industries, thus making *localisation of factory industries* possible, e.g., jute mills in Calcutta and cotton mills in Bombay and Ahmedabad,

(c) to connect our villages and towns to the other countries of the world, and thus make it

generally possible to get the products of other countries into our own country at cheap rates, (e. g., cloth, machinery, etc.,) and at the same time sell our products (jute, oilseeds, etc.) to other countries at higher rates. Contact between towns and villages. increases to the mutual advantage of both, and, as all the countries of the world are brought within one economic whole, each country gets the opportunity to utilise its resources to the best advantage possible. With the introduction of the modern means of transport, both *the internal and the external trade of the country have developed*—today we consume many things produced outside, and we produce many things for the outside markets; and the production of the country as a whole has very much increased. No doubt our cottage industries have suffered and the self-sufficiency of our villages is gone, but we have received advantages of greater moment instead,

(d) to connect the fertile and densely populated parts of the country to the less fertile and less dense parts, and to *distribute food in times of famine* and thus partly mitigate the sufferings of the people due to famine,

(e) to *make easy movement of labour possible* from one part of the country to the other and thus improve the efficiency of labour as a whole,

(f) to *widen the mental outlook* of the people, to remove caste restrictions, to do away with the ideas of conservatism, etc., etc.

And means of communication enable buyers and sellers over different areas to come into contact

*with each other* They facilitate transactions between them. They assist customers to compare the prices over different areas, and to make purchases where it is cheap and sales where it is dear.

The chief means of transport and communication in India are

- ( i ) Railways
- ( ii ) Roads
- ( iii ) Waterways
- ( iv ) Airways
- ( v ) Posts and telegraphs, telephones and wireless, etc., etc.

#### ( i ) Railways:

These are of course the most important means of inland transport. There are three main types of railways in India—broad gauge, metre gauge, narrow gauge. Some of the railways are owned and managed by the State, others by railway companies; but in either case the Government of India exercises general powers of control. There are about 45 000 miles of railway in the country; but as compared with other countries of the world, India is still backward in railway development. For example, while there are 82 miles of line per 1,000 sq miles in the U. S. A. and 195 miles in England, there are only 22 miles per 1,000 sq. miles in India. The insufficiency of railways is, indeed, very great—there are no railways to connect rural areas with ports or big towns, etc., etc. During the present war particularly, there has been an acute shortage of railways. Partly because the system has had to provide for large movements of troops and materials

and has had to transfer much of the rolling stock and staff to different theatres of war, and partly because there has been a tremendous increase in traffic during this war, while it has been extremely difficult to get railway materials from England, etc., we have to face a rapid deterioration, and almost a breakdown of the railway system in India.

*Advantages of railways :—*

(1) They are the chief carriers of both the export and import trade of India. This has resulted in a great increase in the volume of India's trade—both internal and external. Naturally, factory industries have developed, and production has generally improved. Modern large-scale business could not be possible without railways (and steamships etc.).

(2) They have linked Indian grain fields to the world markets, and this has resulted in raising the prices of agricultural crops. This has also enabled the Indian farmer to grow commercial crops like cotton and jute.

(3) They are a great agency of famine prevention and relief. Indian famines can no longer be food-famines, for grain from other places is rapidly transported to the famine-stricken areas.

(4) They are a great means of education and civilization. People travel more widely, and frequently mix with foreigners and strangers and thus broaden their outlook. The influence of the railways in weakening caste purism has been considerable.

(5) They have afforded employment to thousands of persons, at the same time that they have helped the industrial growth of the country.

(6) They are also advantageous from the military and administrative point of view.

(7) They have added to the wealth of the country, and improved the welfare of her people. They have brought about better production and better consumption of wealth etc, etc

*[However railways have changed the entire condition of agriculture and village life in India —*

(i) The self sufficiency and isolated character of the village has been destroyed altogether. The cultivators at present do not produce only those commodities which they need for the satisfaction of their own wants or the wants of their neighbours but commodities which may be demanded by people in any country of the world—we have commercial farming now. Localisation of crops has—naturally followed. Wheat is localised in the Punjab jute in Bengal rice in Burma sugarcane in the U P oilseeds in Madras and C P etc. On the other hand imports from other countries have found their way into our villages and people in our villages today obtain commodities produced in different countries of the world however remote e.g. they import American oil Lancashire cloth Japanese toys cloth and hosiery German needles and razors, etc etc.,

(ii) Along with the self sufficiency of our villages caste system and conservatism of the people are also gradually disappearing and the general out-look is becoming wider mobility of labour is increasing etc etc

(iii) Agriculture has stayed on in the country but the condition of the agriculturists has been going from bad to worse owing to increasing population as also to the fact that many cottage workers have given up their cottage industries and joined the rank of the agriculturists

(iv) Cottage industries have decayed on account of competition. Only those industries have survived which depend on local demand and which could not be supplied from outside for



one reason or the other, the articles produced in large factories, cheap, fine and attractive, having generally driven out the coarse, rough and dear products of the hand from the market.

In fact, the development of railways has released tendencies working at the same time in opposite directions. Thus they have made people more enterprising in one way but stifled their enterprising spirits in another way, have increased the country's trade but made her dependent on foreign countries for her supply of finished products as well as the sale of raw materials, have acted as a stimulus to some industries but dealt a death-blow to other industries, have mitigated the hardship of famine, but turned famines into perpetual poverty, etc., etc. It is difficult to say whether on the whole the influence of railways has been harmful or beneficial. ]

## (ii) Roads:

The mileage of roads in India has been constantly increasing but still road transport is in an unsatisfactory state considering the vast needs of the country. There is a lack of small feeder roads connecting rural areas with trunk roads, and with railways. More roads are necessary to help the marketing of agricultural produce and to bring about an expansion in the internal and foreign trade of the country. The need for roads is growing more important because of the growing motor traffic, too. The mileage in India, for every lakh of population is only 84, while in the United States of America it is 2550 miles. The total road mileage of India is about 286,000, of which about 65000 miles are metalled and motorable; and there exist at present four great trunk roads with which most of the feeder roads are connected. The most important of these roads is the Grand Trunk Road,

stretching right across from Khyber to Calcutta. The other three connect Calcutta with Madras, Madras with Bombay and Bombay with Delhi.

The importance of roads in India becomes quite apparent when it is remembered that India is an agricultural country and the prosperity of her people is intimately connected with the value they receive for their agricultural produce, which in its turn depends upon the presence of roads connecting our villages to the towns and to the rest of the world. 'Roads and railways mean markets, and markets mean the stimulation of agriculture and industries both' The importance becomes greater still when we think of the increasing use of motor cars and lorries these days

[ With the advent of mechanical road transport there has ensued a cut throat competition between road and railway transport but this is true for short distance traffic only and long distance transport has still to be taken up by the railways. There is however an overlapping area in the neighbourhood of large cities and suburbs where railways and lorries run parallel and compete with each other. Efforts are being made to find a solution of this new aspect of the problem and there is a distinct tendency towards the co-ordination of rail and road transport. Here and there railway companies have already started participating in road transport services through contractors etc ]

### (ii) Water Transport :

Water transport consists of inland water-ways and marine transport (supplied by her long sea-board). As far as inland water transport in India is concerned, boats and steamers have failed to hold their own against railways, and as regards external water or marine transport also, it is really

a sad thing to note that with her extensive coast line and her consequent fitness for becoming a sea-faring country, India has no ships and no ship-building industry worth the name, and India's foreign trade is almost entirely monopolised by British ship-owners.

#### (iv) **Air Transport :**

This has not yet assumed any importance in India, because of heavier cost. The airways are yet confined to the transport of light goods, ordinary letters, and passengers. But they have their sphere of usefulness.

There are at present three companies operating scheduled air lines in India. (i) **Tata Sons, Ltd.**, Bombay—services run from Madras to Karachi; Karachi to Colombo; Bombay to Trichinopoly; and Bombay to Delhi. (ii) **Indian National Airways, Ltd.**, New Delhi—services run between Delhi-Lahore-Karachi; and between Karachi-Calcutta. (iii) **Air Services of India Ltd.**, New India—carrying on operations from Bombay to Kolhapur via Poona, though this service has been lately suspended

The value of aviation to business is very great. It has become greater these days. And the Government is trying to provide sufficient encouragement for a training of Indians in the art of flying, pilotage, and engineering. Efforts are also being made for the construction of air-craft in India, and the Hindustan Air-craft Co., Ltd., has been registered in Mysore to take initiative in the matter. During the present war particularly the matter of development of aviation has assumed great importance in India.

### ( v ) Posts and Telegraphs, telephones and wireless, etc

These are important means of communication. They are not only important for transmitting news from one place or person to another, but they also help in the education of the illiterate people and in providing the rich with all sorts of entertainments. Customers can place orders with their dealers either by post or telegraph, or on the telephone. Rates of commodities are broadcasted on the radio. Education is also imparted to the illiterate people on the radio etc, etc

### Means of Irrigation

No less important than the means of transport and communication are the means of irrigation for the economic development of a country. Their importance is particularly great in the case of an agricultural country like India where 73% of the people depend upon agriculture, and from quite ancient times people have tried to store water in huge tanks and to reach water under the ground by wells. In the last one hundred years, they have also utilized the surplus water of big rivers by means of canals.

The **benefits** that the cultivator enjoys from irrigation are as follows —

( 1 ) Rainfall is distributed unequally over the country, e g, Cherapunji gets 460 inches while Upper Sindh gets only 3 inches. The distribution of rainfall over the seasons also is irregular e g, in one season the greater part of India is in flood while in another it becomes a dreary waste. Again,

the monsoon sometimes fails and there is a serious deficiency of rainfall, e. g., in one year the rainfall in Upper Sindh was nil.

For all these reasons, it is absolutely necessary that irrigation works should make agriculture independent of rainfall, and this has been possible by means of canals, etc.

(ii) Irrigation brings waste and barren lands under cultivation, (e. g., the canal colonies of the Punjab which were once barren have now been turned into smiling fields), makes it possible to introduce new crops, (e. g. American cotton is grown in India at several places today); and enables cultivators to produce better crops and thus increase the yield of land, (e. g.. it enables cultivators to grow two crops instead of one in the year).

(iii) It brings the level of sub-soil water up and increases pasturage; and also makes the construction of wells easy by raising the level of water.

(iv) It increases the country's wealth and prosperity, it decreases unemployment, it averts the danger of famines, and it increases the income of the Government in many ways.

[There are, however, some **defects**, too, of canal irrigation:—

(i) Canals tend to raise the sub-soil water and lead to water-logging. This makes the soil uncultivable, as has been the case in certain parts of the Punjab.

(ii) Large canals hinder the courses of the rivers, and in this way interfere with the system of drainage provided by nature. Leakage of water from the canals to the surrounding fields makes them damp and swampy. These places may become breeding grounds for mosquitoes with bad effects on the health of the people.

(iii) Canals bring up various salts to the surface and render the soil uncultivable on account of salt effervescence. Thus most of the canal irrigated tracts now abound in *lona* or *reh* and the future prospects in this respect are alarming.]

### **Classification of irrigation works in India :—**

Irrigation methods are primarily three :—

( 1 ) Canals.

(ii) Wells

(iii) Tanks

( 1 ) **Canals** are now regarded as the most important form of irrigation and form the glory of the Indian irrigation system. There are two kinds of canals those which depend for their water-supply on the natural supply of rivers, and those that depend on artificial storage. Those which rely on the natural supply of rivers are again of two types (a) Perennial canals and (b) Inundation canals. **Perennial Canals** are provided with some arrangement in the vicinity of their heads, usually in the form of an obstruction across the bed of the parent stream, by means of which they are enabled to obtain their supplies irrespective of the level of water in the river. The water is by means of this obstruction, called weir, taken up to the height required to secure admission to the canal, and seasonal fluctuations in the water-level are counter-acted. Within this class fall the great systems of the Punjab and the U P and the Sukkur Barrage in Sindh. **Inundation Canals** in Sindh and Punjab have, on the other hand, no such means of control or weirs, and their supplies fluctuate with the natural water level in the river. When this rises the water-level in the canals rises, when this falls the

water level in the canals falls with it too. Generally speaking, inundation canals obtain a supply only when the parent stream is in flood. There may be an ample volume of water in the river, but, in the absence of any method of raising its level, it cannot be forced into the canals until the water rises of itself to a sufficient height. [Canals in India are also classed as (a) **Productive** and (b) **Unproductive**. The former are those which within 10 years of the completion of construction, earn a revenue sufficient to cover working expenses and interest charges. The latter are constructed primarily with a view to the protection of precarious tracts and to guard against the necessity of famine-relief expenditure, and are not meant to bring profits. Productive canals yield from 9 to 10% and the unproductive canals less than 1%.]

The following are the **important canal systems** in the country:—

(i) *Punjab*: The Sutlej Valley Project, The Triple Canal Scheme, the Sirhind Canal, the Upper Bari Doab Canal, the Lower Chenab Canal, and the Lower Jhelum Canal. Of these, the Sutlej Valley Project was completed in 1932-33 at a cost of over 21 crores, and irrigates above 5 million acres; and the Triple Canal Scheme was completed in 1916 at a cost of over Rs. 8 crores, and irrigates about 4 million acres.

(ii) *United Provinces*: The Eastern Jumna Canal, the Agra Canal, the Upper Ganges Canal, the Lower Ganges Canal, the Betwa Canal, and the Sarda Canal. Of these, the Sarda Canal is the most important. It was completed in 1930 at a cost of about 10 crores and irrigates about a million acres of land, mostly in Oudh.

(vi) *Sindh* The Sukkur Barrage Scheme completed in 1932, at a cost of about Rs 20 crores, and irrigating about 5 to 7 million acres of land. It is the greatest work of its kind in the world. It is about a mile in length and has been constructed across the Indus at a little distance below Sukkur. (The canals in Sindh were so far entirely of the inundation type. They obtained water for about 5 months only when the Indus was in flood. But now this scheme feeds them all)

(iv) *Madras* The Cauvery Reservoir Project and the Periyar System. The former was completed in 1934 at a cost of 6 or 7 crores and irrigates several million acres of land. The latter also is an important scheme irrigating about 10 million acres.

(v) *Bombay* Lloyd Dam and Wilson Dam, completed in 1921 and 1925 respectively.

(vi) *Bengal* The Damodar River Project.

(vii) *Central Provinces* A large scheme is under consideration.

In all about 150 crores have been spent by the Government, and out of a total cropped area of 233 million acres about 30 million acres are irrigated by these canals, while 14 million acres are irrigated by wells and 6 million acres by tanks and storage works. The percentage of cultivated area irrigated by canals in the different provinces is as follows: Sindh 73.7%, Punjab 44.1%, Bengal 6.2%, C. P. & Berar 4.2%, Bombay 3.9%. Says SIR JOHN STRACHEY: 'No similar works in other countries approach in magnitude the irrigation works of India, and no public works of nobler activity have ever been undertaken in the world.'



(ii) **Wells** are also a source of irrigation. Well-irrigation is to be found mainly in the U. P., the Punjab, Bombay, Madras and Behar. Where under-ground water is abundant, water can be lifted by **Persian wheels** (*Rahat*), but in districts where water level is low the rope and leather bucket are in use. It is only recently that **tube wells**, operated by electricity, have been introduced in the U. P. With cheap hydro-electric energy, there is infinite room for expansion of these.

(iii) **Tanks and Storage works** are practically unknown in the Punjab and Sindh, but tank irrigation is common in Madras, Mysore and Hyderabad; (It is not so easy to dig wells and canals in Central and Southern India, owing to the ground being hard and rocky. Canals can only be constructed in the deltas of the rivers in Southern India where the soil is soft. And, therefore, tanks and storage works are a necessity there).

It is clear from this survey of irrigation works that much has been done to supply cheap and ample water for successful cultivation of crops in the country. But there is room for further expansion still. The history of irrigation works no doubt, wings out the fact that almost all the big rivers have been already tapped, and there is not now much scope for the developemnt of canals; but there is still a great scope for the development of storage works to hold up the water which at present goes away to the sea unutilised, and also for the construction of tube-wells. Irrigation of another 50 million acres of land in this way is by no means improvable.

## QUESTIONS

- 1 Define the term capital Distinguish between fixed and circulating capital Do you consider the following to be capital?
    - 1 Land
    - 2 Seed corn
    - 3 Hoarded rupees
    - 4 The goodwill of a businessman
  - 2 What are the conditions which favour the growth of capital in a country ? Discuss these fully with special reference to Indian conditions
  - 3 Explain the part which capital plays in the production of wealth Indicate the conditions that determine its supply
  - 4 Discuss the advantages and disadvantages of the employment of machinery in production What is the effect of this on labour ?
  - 5 What are the economic benefits of railways to India ? Explain the causes of the present over crowding on Indian railways
  6. To what extent and in what ways is the economic development of a country dependent upon its means of communication and transport ? Explain with special reference to India giving also an idea of the various means of transportation and communication found here
  - 7 Describe the effects of the development of the means of transport on conditions of agriculture and village life in India What changes have resulted in rural industries from cheaper and quicker means of transportation ?
  - 8 What are the different methods of irrigation practised in India ? Describe the merits and demerits of canal irrigation
  - 9 Describe the types and extent of irrigation facilities that exist in India How far can they be extended ? What are the benefits that the cultivator enjoys from irrigation ? Illustrate your answer.
-

## CHAPTER 14

### ORGANIZATION

#### The Role of the Entrepreneur.—

In the early stages of industrial life the same artisan owned the land, labour, and capital, organised the whole business, and enjoyed the profits or suffered the losses. But in these days of large-scale production, these functions are undertaken separately, for instance, in the case of joint-stock companies, land is supplied by one man, labour by another, and capital by a third man, while the manager, who is a paid man, looks after the management side—he gets a salary for the management work he does, and has nothing to do with the profits and losses of the business—and the shareholders, through a board of directors formed from among themselves, direct the general policy of business, undertake all risks, and share the profits and losses. The last two functions of management and risk-taking are the functions of an entrepreneur.

Thus the work of an entrepreneur is two-fold. **Firstly** he has to organise or look after the management side of business. "Management of business is itself a business" —As all commodities are produced today by a number of different factors working in combination, some person must perform the task of combining these different factors together. Economists usually call these persons "entrepreneurs".

The entrepreneur has to procure land and capital, hire labourers, and control the policy of business as regards the nature of production. He has to bring land, labour and capital together. He has to find out the best markets for obtaining raw materials from, has to understand the tastes of the consumers and produce things that would suit those tastes, has to study the broad movements of supply and demand and has to find out the best markets for his finished products. He has to co-ordinate the various factors of production in such a way that each factor is efficiently employed and all waste is eliminated. He has to pick out the right man for the right job, and has not only to exact obedience from his employees but also to inspire them, so that they may take a pride in their work and produce better, etc., etc. He need not be necessarily a technical expert, but should be a master of the situation. He must possess certain qualities. He must have 'judgment and tact, ability and resourcefulness, the gift of leadership, and many other such qualities. He must be good at 'forethought and planning'. He must have the ability to organise labour. He must have knowledge of the technical details of business. He must be able to inspire confidence among his subordinates, etc., etc.

**Secondly,** he has to undertake risks. Formerly when things were made to order and on a small scale, there was little risk, but in modern times, business is full of risks—the forecasts of the productivity of factors may not come right, fashion may change, the demand of the public may decline, substitutes of the commodities may be introduced in the market

new inventions may be made which may bring down the prices, new markets may be discovered; or there may be unexpected losses through competition, strikes and lock-outs, political disturbances and natural calamities, like fire or flood. All these risks have to be taken by somebody, and it is the entrepreneur who bears most of the risks of industry. The land-owner must have his rent, the labourer his wages, the capitalist his interest, (and the manager his salaries,) without caring whether there is loss or profit in the business. So the entrepreneur is the only person left for undertaking the risks of business; and in so far as he does so he is a risk-taker or an enterpriser at the same time that he is a manager or an organiser proper.

In this way, the work of organisation consists of two parts (*i*) organising or looking after the management side of business, and (*ii*) the taking of risks. The first part is known as **Organisation Proper**; the second part is known as **Enterprise**. For example, in a joint stock company, the work of organisation proper or management is done by the manager, or managing director, who gets a salary for it, and the work of risk-taking is done by the share-holders who enjoy the profits and bear the losses.

We must note here, in passing, that the place of an entrepreneur in modern industrial life is very prominent. He is, in fact, the pivot of modern production—he gives it birth, and controls its life. He plays an important part in the development and prosperity of a nation. Indeed, an ideal entrepreneur is a rare genius, and services of

such entrepreneurs as Henry Ford, Rockefeller, Tata, Sir R. N. Mukerji, Birla, Singhania, and Dalmia are invaluable national assets, indeed

### **Types of Productive Organisations**

In the early stages of industrial life the same artisan owned the land, labour and capital, organised the whole business, and enjoyed the profits or suffered the losses. But in these days of joint stock companies these functions are undertaken separately. Land is supplied by one man, labour by another, and capital by a third man, while the manager, who is a paid man, looks after the management side—he gets a salary for the management work he does and has nothing to do with the profits and losses of the business—and the shareholders, through a board of directors formed from among themselves, direct the general policy of business, undertake all risks, and share the profits and losses. Between these two types of production, there are various other types, too, and all these types of productive organisation, ranging from the simplest to the most complex, are to be found flourishing side by side, because all of them have both good as well as bad features. We shall discuss the more important types of business organisation below :

- ( i ) *The individual producer or the Sole Trader*
- ( ii ) Partnership
- ( iii ) Joint stock companies
- ( iv ) Combinations and monopolies
- ( v ) Co-operation
- ( vi ) State management.

### **The Individual Producer or the Entrepreneur.—**

This is the primitive form of business organisation, in which the same man—known as the *entrepreneur*—supplies land, labour and capital, organises the production and undertakes the risks. Hawkers, petty shop-keepers, artisans, and craftsmen are examples of this. Their business is really a one man's show. They either supply their own land, labour and capital, or they take land on rent, hire labourers and borrow capital, when necessary; but in both cases the control of, and responsibility for, business are in the hands of one man, the entrepreneur.

The chief advantage of this type of business lies in the great personal interest of the employer in the business. As all profits belong to him, he has a great inducement to introduce economies and to manage the business efficiently; and he always does his best. The chief defect is that it is not suitable for large business, such as railways, steamship services, etc., which require a large amount of capital that a single person may not own, and expert knowledge of various departments that a single person may not possess, and which involve considerable risk that a single person may ill afford to bear. The newer types of organisation have been introduced with a view to remove these disadvantages.

### **Partnership.—**

As the size of business began to expand, more capital and more brains became necessary, and the partnership system came into vogue. An association

of two or more individuals for business is called partnership. The partners supply among themselves the capital required for the business and divide among themselves the responsibilities of management and supervision, etc., etc.

The chief advantages of partnership are that two or more persons working together can command more capital than a single person working alone, and that the work of management can be distributed among the partners, so that one partner may be chiefly concerned with the internal management of the business, another with the purchase of commodities and a third with the sale. And the chief defect is that as loans for business are taken by mutual consent of the partners, every partner is held responsible for the entire debt of the firm. The creditors of the firm have the legal right to recover the whole debt from any partner. For instance, there are three partners, A, B and C, and each has undertaken to share the profits and losses equally with the others, but A is rich and possesses property, while B and C, though equally responsible for the loss, are very poor and without any property. If the firm fails, the creditors of the firm, that is, those who have to receive money from the firm, may realise the entire money from A alone, if they so choose. The result is that any wrong action on the part of any one of the partners at any time may unnecessarily involve the other partners, and, therefore, many people do not like to work in partnership. Besides, divided responsibility is no responsibility, and partnership in most cases leads to carelessness and inefficiency—the profits and losses are to be



shared by all the partners and, therefore, no partner works wholeheartedly. Every partner wants to do as little work as possible, and to get as much money as possible.

### **Joint Stock Companies.—\***

When the size of business began to grow larger and larger, and the risks of business began to multiply, too, it became difficult for a few partners even to invest a sufficient amount of capital, and hence the partnership system was substituted by the joint stock system.

A joint stock company is an association of a very large number of men with a very large quantity of capital organised to conduct business for gain with a joint stock ( joint capital ). It is formed to carry on business which requires too large a capital to be readily supplied by one man, or by even a dozen partners, e. g., the working of a mill, or a factory, or a bank, or the building of a railway or steamship. It not only enables a large amount of capital, and a variety of talents to be brought together, and the

---

#### **\* Joint Stock Companies**

The Indian Companies Act allows any 7 or more persons who comply with certain conditions—the publication of a prospectus whereby the founders or the promoters of the company declare the scope of the company, the capital required and the number of shares into which it is divided, the conditions of subscription and payment, the advantages and profits expected, etc., etc.—to form a company and get it registered with the Registrar of Joint Stock Companies in the province. It allows these persons to raise capital, to divide it into a number of shares and sell them to the people, and to carry on the business with a limited liability on the part of the shareholders of the

responsibility for risks of such large business to be shared by many persons instead of by only one or two, but it also makes it possible for people with business ability and only small means to combine with people who are rich but have little business ability, and thus enables people with little business ability or limited means to turn their small resources to useful purpose. The greatest advantage of a joint

company provided the company holds itself responsible to the public for accurate accounts and efficient management. The accounts of the company are public property and have to be maintained according to the rules prescribed by the Registrar. The shares of the company can be sold or transferred by the shareholders at any time without the consent of the other shareholders and any man can buy any number of shares subject to the rules of the company.

Such companies are managed by the Board of Directors elected by the shareholders from among themselves. The details are carried on by the managing director or directors or only the managers who work under the control of the Board of Directors. The directors dictate the policy, the salaried managers and their assistants run and superintend the business while the shareholders undertake the risks of loss or gain.

### Capital of the Company

The maximum amount of working capital upto which the registrar permits a company to extend the business is known as the *authorised capital* of the company.

It is however not necessary that shares be issued for all this sum. Shares may be issued for a smaller amount and this amount of capital for which the shares are actually issued is known as the *issued or subscribed capital* of the company.

Again the whole amount of the share need not be paid at once in the beginning and the amount of capital that has been actually paid up by the shareholders and received in the office of the company is known as the *paid up capital* of the company.

stock company, however, is that the members of a joint stock company, or the shareholders as they are called, have no individual liability to the creditors of the company for its debts. Their personal liability is satisfied if they pay the amount of the shares they hold. For instance, if I hold a share of Rs. 1000/- in a limited company, which fails, I cannot be called upon to pay a pice more than one thousand rupees, no matter what the losses of the company may be, and no matter whether other shareholders have paid or not. For this reason, joint stock companies are called limited liability companies.

There are, however, some disadvantages of the joint stock companies, too. The joint stock business is alleged to be a capitalistic system of production—that is, in this system the interests of the labourer are completely sacrificed to that of capital. The gap between the employer and the employed widens giving rise to the evil of conflict between labour and

---

The shares of a company may also be either *ordinary*, *preference* or *deferred shares*. The holders of ordinary shares regulate the policy of the company, and are responsible for profits and losses. If in any company there are preference or deferred shares also, the position of the ordinary shareholders comes between the preference and deferred shares. The holders of the preference shares have the first claim on the profits, though they get only a fixed rate, the ordinary shareholders come after the preference shareholders, and whatever is left after paying off the dividend to the preference and ordinary shareholders both, is distributed amongst the deferred shareholders, who are generally very small in number, and who take very great risks—they get a dividend very seldom, i. e., only when the profits are abnormally large, but when they get profits their share is generally very large because of their small numbers.

capital—strikes and lock-outs Besides, there is divided responsibility and loose control Some companies are so big that it is not possible to fix the interest anywhere. It is difficult in some cases to decide as to who is responsible when things go wrong Above this all, this system of business allows great scope for the practice of dishonesty and fraud by the managers, the ultimate risk-takers being the shareholders Rash enterprises are frequently undertaken, and, sometimes, bogus companies are set up, too After attracting capital from poor people, the founders or promoters of the company disappear altogether, thus doing a great deal of harm to credit and industry in the country

*In India joint stock companies have not made very rapid progress for several reasons* The shareholders in this country are generally careless towards the management of their company, there is not sufficient supply of competent men to work as directors or managers, and sufficient help from banks is not forthcoming Because of inefficient

---

*Debentures* are loans issued at a specified rate of interest The holders of debentures must be paid their interest before any dividend can be distributed among the shareholders The difference between shares and debentures is that the former enjoy profits and dividends while the latter are concerned only with their interest

*Note* The type of companies described above is known as the public Joint Stock (or limited) Company The law however provides for another type too—private Joint Stock (or limited) Company In this type the number of shareholders cannot be less than 3 or more than 50 It is not responsible to the public Its accounts can only be examined by the few shareholders of the company

management in many cases joint stock companies in India have acquired a bad name for getting into liquidation soon after they are born.

However, there are now about 5,500 companies with a capital of about 350 crores and this form of organisation is to gain ground and one day become the predominant form of organisation, as is the case in the West. They are of immense service, indeed, in bringing small incomes together, in removing the shyness of capital, in making it more mobile, in making large-scale production possible and in solving the problem of India's industrial backwardness to a very great extent. Without them, we would not have such large factories and concerns as the Tata Iron and Steel Works, or the Suez Canal, or so many railways and steamships or even jute and cotton mills.

### **Combinations and Monopolies.—\***

In these days of large-scale production and keen competition, business units sometimes combine together and form what is called a combination\*, or a combine. They do so with a view to drive out the competition of smaller firms and to force the prices up.

\* Different forms of combinations are :—

( i ) *Vertical combinations.* A vertical combination arises when all the different stages of production from the obtaining of raw materials to the manufacture of finished products are combined and brought under one management, e. g., the United States Steel Corporation, which has its own mines of iron and coal, carries its ore and coal by its own railways and steamships, etc., etc., and is yet under one management. Tata Iron and Steel Works in India is another good example.

( ii ) *Horizontal Combinations* In this form several firms or enterprises of the same kind combine together under one management e g the American Sugar Refining Company which has been formed by a combination of many large sugar refineries under one management Standard Oil Company of America is another good example

( iii ) *Trusts and Kartells* These are types of horizontal combination When the share capital of several competing firms is combined together and new shares are issued in the name of a separate new company, the combination is known as a Trust When there is only one association or federation of firms for restricting output and fixing the prices and the different firms do not lose their individuality the combination is known as a kartell The former type is more common in U S A and the latter in Germany

( iv ) *Pools rings and corners* Sometimes producers combine together to form a pool e g the pooling by ice factories in a town, so that the price may not fall in consequence of competition among them or a ring or a corner to regulate supplies of the market so as to increase price e g, the combining together of speculators in Bombay to purchase all the cotton in the market so that they may have a monopoly of it and may sell the same later on at whatever price they chose

**Advantages** gained from Combinations are —

- (1) Economy of large scale production and lowering of costs as a result of it
- (2) Economy of freights and marketing due to large scale business
- (3) Elimination of ruinous competition
- (4) Stability of prices (These combinations can secure a stable price by proper adjustment of supply with demand Hence there is no chance of over-production and wastage The Standard Oil Trust of America is a good example of how it has controlled the prices of oil throughout the world and avoided wastage by proper-adjustment of demand and supply )

**Injuries done are :—**

(1) They disregard the interest of the consumers sometimes, and raise the prices higher. They can do so because they have more or less a monopoly.

(2) They also sometimes adopt many unfair means for shutting out competition, e. g., discrimination of prices in different areas and preferential treatment of 'favoured' consumers to the detriment of other consumers. Firms are known to charge higher prices from persons who are more eager to buy, who are rich, or who live in fashionable quarters, while charging a lower price from persons who are poor and less eager to buy. Also they charge a lower price at one place—where they have to face a little competition; and to make up this loss they charge a higher price at another place where they have an absolute monopoly.

(3) A good deal of corruption spreads among politicians and statesmen, who are responsible for carrying out the policy of protection, etc. Having vast resources at their command, they bribe them to get laws passed in their favour.

(4) The elimination of competition results in the closing down of less efficient firms, and the killing of enterprise. The consequence is unemployment of labour, and displacement of capital. Besides, combinations command such a power in the labour market as to be a constant terror to the labouring classes, who are at their mercy.

**Remedies** for these abuses of monopoly are:—

(1) Fixing of prices by the State. There are, however, many difficulties in this. For example, in many cases commodities cannot be standardised and graded, and no maximum price can be fixed in those industries where competition is in terms of quality and marketing efficiency rather than of price.

(2) Fixing of a limit on profits rather than in the price. This is also difficult in practice, for certain industries cannot be so readily controlled.

(3) Giving publicity to the objectionable practices of the monopolist and thus controlling the exploitation by means of public opinion and propaganda "Light is the sovereign antiseptic and the best of all policemen,"

### Co operation.—

All the forms of business mentioned above are conducted in a selfish spirit. No matter, whether the business is owned and managed by one man, or two or more partners, or by the company, and whether it is managed under conditions of monopoly or competition, the tendency is to reduce the wages of labourers, and to oust weaker producers by unfair competition. Hence some people have thought of mitigating these evils by means of co operation

---

(4) Taking over of the ownership and control of such monopolistic concerns (For example, Railways, Tramways, Electricity works etc )

[ Since the Great European War, however, the formation of capitalistic combinations has begun to be considered as desirable for the "Rationalization" of basic industries a name given in Germany to the post-war tendency towards the formation of national and international agreements and combinations in industry and trade, with a view to controlling the output, fixing prices, etc., and thus carrying on a scientific scheme of cost reduction in the interest of national economy. This is, in fact the basis for economic planning ]

The object of rationalisation is to remove the wastes of competition. Suppose the Indian boots and shoes industry is rationalised, their expenses incurred by individual firms on advertisement will be saved. Further, production, in rationalization, will be concentrated in the more efficient works—the least efficient works may be closed down. Specialization of works will be possible, and finally cross transport charges will be eliminated. For example if India is divided into zones—say Northern, Southern, Eastern, Western, & Central Zones—then under single control the industry will supply each of these zones with the product of factors located in the zone under competition, a Southern India factory may sell goods in Northern India, and vice versa ]



Co-operation is an association of individuals to secure a common economic object by working in an unselfish spirit. In its ideal form, the shareholders in a co-operative system of production are the workers and masters both. They take the entire responsibility of risk and at the same time carry on the production themselves. The advantages of this form of organisation are many, if the members have a sense of duty, mutual confidence, and a realisation of the ideal "each for all and all for each". But in actual practice, co-operative production has seldom proved successful due to petty jealousies, inefficiency of management and lack of discipline.

Similarly, there are consumers' co-operative societies i.e.,—associations of consumers engaged in retail trade and sharing the trading profits among their members. A number of such societies may combine to form a wholesale society which supplies the retail societies and may engage in production—e.g., growing wheat, making clothing, running a bank and so on.

Producers' Co-operative societies, in the same way, are associations of producers marketing the products of their members, and sharing the trading profits among them. Such societies are found in Denmark, etc., etc.

[ *Read Vol. II Chapter 10, page 168, footnotes.* ]

### State Management.—

In many countries governments have begun to manage businesses which formerly were in private hands. For example, the Government of India constructs railways and canals, runs post offices,

etc., etc Russia and Germany have gone further and have been carrying on regular schemes of planned economy in their countries.

### Conclusion :

The general conclusion is that there are different types of productive organisation, and most of them can be seen side by side in the country. The common feature, however, of modern organisation is the introduction of specialisation, division of labour, and large-scale production. We shall proceed to discuss them in the next two chapters.

## QUESTIONS

- 1 Account for the rise of the entrepreneur class in the modern business world. What are the functions of an entrepreneur ?
  - 2 Distinguish between organisation and enterprise. Fully explain their importance in the modern system of production.
  - 3 What is a Joint Stock Company ? What are its advantages and disadvantages ?
  - 4 Write an explanatory note on Shares ( Ordinary Preference and Deferred ) and Debentures issued by a joint stock company. What is meant by authorised capital, subscribed capital and paid up capital ?
  - 5 What are the various types of industrial organisation met with in India ? Briefly discuss their advantages and disadvantages.
-

## CHAPTER 15

### DIVISION OF LABOUR

**Division of Labour.**—In a business unit in modern times the whole of one process is not performed by one labourer, but is divided among many. This is called *Division of Labour*, or combination, co-operation or association of labour.

**“The splitting up of a task into its sub-processes and performance of each process by different individuals is called the Division of Labour”.**

[ Division of Labour is said to exist whenever several persons work together. But it may be simple or complex. *Simple division of labour* is that form of co-operation in which all the labourers perform the same kind of work, e.g., when several persons roll a log of wood down a hill to carry it to the bottom. *Complex division of labour* is that form of co-operation in which the work of each labourer or group of labourers is different, even though all the labourers may be aiming at having a common result, e.g., when one man carries on spinning, another weaving, etc., etc.

Again, division of labour may be found between groups of labourers who are not related to one another, e.g., when a group of labourers grows cotton in Gujrat, another transports it to Bombay, a third makes it into cloth. Or, division of labour may be found among labourers working under one organisation, e.g., when in a factory a group of labourers works the power engine, another does the spinning of yarn, a third does the weaving of cloth, and a fourth does the bleaching or dyeing. Strictly speaking, the former is not division of labour, while the latter is. *Division of labour is said to exist when the work of all the labourers, whether similar or different, is under the same supervision and management.* ]

## Forms or Kinds of Division of Labour —

### (1) *Division into trades and professions or occupations*

In this form of division of labour, different occupations are taken up by different groups of men, e. g., farming, cloth-making, shoe-making, etc. Each craftsman does his work from the beginning to the end. Caste system in India is the best example of this kind of division of labour.

### (2) *Division into small industries*

In this form of division of labour, different labourers give up working on their own account and co-operate together to work under a master craftsman or a "boss" on wages. Each worker turns out a complete article from the raw materials supplied to him by the organiser, yet all work together under the same "boss".

### (3) *Division into complete processes*

In this form, the work of production is broken up into several processes which can be completed in themselves by groups of people working independently of other groups. Instead of the cloth being made by one man from raw cotton, the growing of cotton, the ginning of cotton, the spinning of cotton, the weaving of cotton, and the dyeing of cotton cloth are done by different workers, each of whom becomes specially skilled in his own line of work. Similarly the woollen industry is divided into several big stages—sheep rearing, spinning, weaving, dyeing, etc. And in the same way in making a door plate, complete processes like mining, smelting, rolling, and smithery are required, so also lumbering, sawing and actually turning a piece

of wood into a table in carpentry. Each of these processes is performed by different groups, though the efforts of all these groups are directed towards making one and the same thing. For example, the work of the agriculturist is over as soon as he has grown and harvested cotton; the work of the ginner is over when he has cleared cotton of its seed; the work of the spinner is over when he has converted ginned cotton into yarn; and the work of the weaver consists only in converting this yarn into cloth. The efforts of all the people working at complete processes may have to be co-ordinated; but the different processes are performed by different groups under different heads, and such division of labour is known as division into complete processes.

(4) *Division into part-processes or incomplete processes :*

In this form every complete process is again split up into many sub-processes, and these can be taken up by different individuals or groups of producers. Each of the processes—ginning, spinning, weaving, etc.—is sub-divided into various processes. For example, in weaving, there is preparing the warp, sizing it, passing the warp through the frame, putting it on the loom, etc., etc. Similarly, in making matches one set of persons is responsible for cutting blocks, another for making chips, a third for dipping these chips into solution, a fourth for making out parts of the match-box, a fifth for putting the chips into boxes, a sixth for labelling the boxes, etc., etc.

(5) *Territorial division of labour—or geographical division of labour—or localisation of industry :*

The extensive development in the means of transport and communication has made possible a form of division of labour determined by geographical conditions of localities. This is known as *territorial or geographical division of labour or localisation of industries*. It enables crops and industries to be produced or carried on and developed in those places that are most suitable for them and most likely to make them profitable. For example, the soil and climate of Bengal have enabled her to specialise in the production of raw jute, Berar and Gujrat have been the home of cotton-growing due to the presence of black cotton soil and a suitable climate, and U. P. and North Behar are the centres of sugar industry. Similarly, jute industry has been localised in Bengal, cotton industry in Bombay, mining in Behar and Orissa, shawl-making in Kashmir, locks at Aligarh, sports goods at Sialkot, watch making in Geneva, cotton in Lancashire, silks in France, wool in Australia, chemical industries in Germany, etc., etc. [Examples of industries not suited for localizations are biscuit and bread making and chocolate industries, electrical engineering, furniture which is generally made to order.]

*Note*—These are the various forms of division of labour no doubt but when we ordinarily use the term we mean by it the division of one industry into various processes and sub processes and entrusting every one of those processes or sub processes to a number of labourers or a group of labourers who can perform them most efficiently because of some special training or aptitude that they might have for doing that work. This may therefore equally well be termed **Specialization of labour** which carries so many advantages with it. An idea of these advantages can be formed by the following illustrations from BENHAM—Suppose that two men both make exactly the same kind of

simple wooden toy and sell their toys in the streets. Suppose the first man can make 20 toys in two hours but takes six hours to sell them, while the second man takes six hours to make 20 toys but only two hours to sell them. If the two men join forces, the first—specializing on making—can make so in eight hours and the second—specializing on selling—can sell these so in eight hours. Their combined output is doubled by division of labour and specialization.]

### **Advantages and disadvantages arising from division of labour.—**

#### **Advantages :**

The advantages arising from division of labour are as follows :—

(1) *Increase in skill*—The first advantage of division of labour is the increase in skill, which arises from doing the same thing over and over again. In a large factory each individual labourer is required to perform only one function, day in day out, year in year out, with the result that he becomes perfect in his art—"Practice makes a man perfect." The concentration of hand and mind upon a few movements causes the muscles, brain and eye to act almost-automatically, quickly and accurately. Almost any person can fold a newspaper, but a skilled *Daftri* will fold a dozen in the time he takes to fold one.

(2) *Saving of time*—If there is division of labour, and each man does only one kind of work, no time is lost in changing tools, in passing from one process to another, or in going from one place to another, while if there is no division of labour, the labourer has not only to move his position and change his tools, but also requires time to adapt his hands to

the new appliances and fix his thoughts on the new task or process.

. (3) *Saving of tools* - There is an economy of tools and machinery in division of labour. For 10 chairs, 10 sets of tools would be required, if each carpenter makes a chair from beginning to end; but if there is division of labour and each carpenter does only one part of work, one set of tools would be enough for all the 10 carpenters, as each would be using only 1 tool out of the set. Specialisation economises tools.

(4) *Adaptability of task to the ability of workers—proper classification of workers*—When there is division of labour there is a great variety of occupation so that there is always some kind of work for every individual from the dullest to the ablest; and even women, children and crippled or blind people can be provided with work; and production as a whole benefits, because each man can be assigned the job for which he is best fitted. For example, production would be better if a man does the work that requires great strength, and a woman does the work which requires less strength, while a child does the work which requires the least strength, than when all the three attempt all the kinds of work. In the latter case, the man would not be putting forth all his energy as he would also be trying light work, while the woman and child would be trying to do work beyond their capacity. Similarly, production would be better if a graduate does the work of a graduate and a coolie does the work of a coolie, than when a graduate not only does the work of a graduate, but also a work that could be easily done even by a coolie-boy—e.g., the



work of simply putting the electric switch on or off. "Each to his utmost" is a good motto in Economics.

When there is no division of labour, a man has to perform all the processes himself. Thus, in order to be an efficient producer, he has to be master of all the processes. As he cannot possibly be equally efficient in all the processes the time spent on the one in which he is less efficient is less productive than that on another, in which he is more efficient. But when there is division of labour he need master only one process and be efficiently engaged on that, leaving the other processes to other workers. Naturally, division of labour and large-scale production are to be preferred—they make a more scientific selection of workers possible.

(5) *Extension of the use of machinery*—When there is division of labour, it is also possible to make greater use of machinery, and when machinery is used, not only production becomes superior and economical, but labourers are enabled to pass from one trade to another, for machines are more or less alike, and there are a number of other advantages. (*Read Advantages of Machinery, Chapter 13*)

(6) *Reduction in the period of apprenticeship*—As the processes are divided and sub-divided and each labourer has to attend to only one particular piece of work, time and effort are saved in learning the work, for it is much easier and more economical to learn one branch of a craft than to learn it in all its branches. For example, a man can sooner learn to make the spring of the watch merely than to make the whole of the watch. If he takes two years

to take an M. A. in one subject, he will ordinarily take six years for taking an M. A. in three subjects.

(7) *Hours of labour are shortened*, and the worker is allowed greater leisure for physical and mental recreation in pursuits and hobbies not connected with his work, for self-education and culture. Besides, his association with many fellow-workers not only provides him with greater opportunities for self-expression, both within and without the workshop, but also brings a sense of unity and co-operation among the workers who become class conscious.

(8) *Promotion of inventions*—A man engaged with only one process has better opportunities to observe defects in machinery and tools, suggest small improvements in them, and thus promote inventions.

All these evidently lead to increase of output at less cost per unit, that is, make production cheaper in every way, and everyone benefits. Producers benefit because they get more profits resulting from low prices and large sales, workers benefit because they get higher wages and greater leisure, and consumers benefit because they can get things for consumption cheap.

**Disadvantages :—**

(1) *The worker loses his skill and sense of responsibility*. He becomes simply a machine tender and has no personal pride in the production. If a worker is engaged in the production of a whole article, he has a sort of satisfaction when he finds his work completed, and sees the object of his toil before him.

His artistic sense is satisfied and he takes a pride in the thing produced. He has also the natural urge for doing the thing thoroughly and well. This is not possible when he does not produce the whole of the thing, but only a part of it. A man making only the spring of a watch, say, cannot think of presenting a whole watch to his friend even after years of work. He knows his own task only and no other. He cannot complete the work himself. The work of each labourer is dependent upon the work of others. In fact, in big factories there are to be found labourers whose sole work is to turn switch up and down. Monotonous work with machinery under the system of division of labour cramps the mind and makes it narrow.

However, this is true only to a small extent. The use of machinery and introduction of division of labour mean less physical and higher mental work. So at the end of the day's work his physical energy is kept up and his mind is alert. At least HENRY FORD denies that mechanization has a deadening effect upon the worker's mind.

(2) *The labourer becomes dependent upon the employer.* He no more leads an independent life, but works as a servant of another. In addition to this one class of labourers becomes entirely dependent upon another class. If a certain thing goes wrong at one place, it must have its effect on the whole industry. And if there is dislocation in one department the workers of another department suffer for no fault of theirs.

(3) *The introduction of the factory system leads to the crowding of people into cities, the atmosphere*

*of the towns becomes dirty, and the health of the people suffers; labourers have to live under insanitary conditions and have to bear the nervous strain caused by the noise and din in the factory; unemployment is brought about by the use of machinery, and there are frequent lock outs and strikes, etc., etc. Direct personal contact between the employers and the employed is missing to this extent that it would not be surprising for an employer not to be able to recognise his own employee.*

However, the advantages of division of labour far outweigh the disadvantages; and the defects are all remediable. In fact the factory workers of today have less work higher standard of living and wider interests; and production today is greater than it ever was before

#### **Limitations of Division of Labour.—**

Division of labour has, no doubt, many advantages, and leads to an increase of production. But there are two pre-requisites to a greater division of labour:—

( 1 ) *Division of labour is limited by the extent of the market.*

In order that there may be division of labour, it is necessary that there must be a wide market. If markets for the sale of the products of an industry are available, production improves and division of labour is possible; if they are not available, production slows down and there is no scope or occasion for increasing the production or introducing division of labour. Unless the markets are wide, there can be no large-scale production; and

unless there is large-scale production, there can be no division of labour in the modern sense.

Let us try to understand this by means of examples. A cloth mill produces a thousand bales of cloth every day. Why does it produce so much? Because all the cloth can be sold in the market. Supposing the markets are not wide, and all the cloth cannot be sold off, will the mill still produce so much? Evidently, no. And when the mill does not produce in large quantity, division of labour also cannot be extended very far. Naturally we say that division of labour is limited by the extent of the market.

For similar reasons, a doctor whose practice is confined to a small village cannot afford to specialize upon one particular branch of his art. Nor can an island, eminently suitable for growing bananas but unable to export, afford to specialise in the production of bananas. Nor, again, can a city afford to have an underground railway unless the volume of traffic is large enough to warrant the expenses of constructing and running an underground railway. Before there is division of labour, or specialization, there must be large-scale production, and before there can be large-scale production, there must be a large demand and an extensive market.

*(ii) Division of labour is limited by the nature of the employment.*

There must be continuous production, if there is to be division of labour. If there is only intermittent work, as in agriculture, the worker is obliged to find other occupations during the slack

period, and in that case the greatest amount of economy cannot be secured from division of labour.

### **Localisation of industries.—**

Causes .

(1) *Physical and climatic conditions*—The climate of Lancashire is suitable for the spinning of cotton, and, therefore cotton spinning has localised there. Similarly, the damp climate of Bombay is more suitable for the spinning of finer yarns than the climate of other places in the country, and the industry has localised there.

Physical and climatic conditions also determine the distribution of raw materials and of sources of power, and, as we shall just see, the nearness to these plays an important part in bringing about the localisation of an industry in a certain place.

(2) *Nearness to raw materials and sources of power provided by nature*—Sugar industry has developed in the United Provinces and Behar because these provinces grow sugarcane in large quantities, jute industry has been localised in Bengal, because Bengal has a monopoly of jute supply, and the Tata Iron and Steel Company has been located at Jamshedpur because the chief sources of raw materials of the industry—iron and limestone—as also the source of power—coal—are both found there close together. Similarly, when coal was the chief source of power, industries in England were situated near coal mines, and when water power began to be used, weaving machines were installed near sources of water-power.

(3) *Nearness to markets*—Accessibility to markets for purchasing raw materials or for selling the

finished product is another important cause for localisation, because the cost of transportation is thereby sufficiently reduced. Bata's have built a shoe-factory and Lever Brothers have opened the Sunlight Soap factory in India, and Swedish people have transplanted their match industry to India, simply to be within the easy reach of the consumer. Similarly, several cinema houses have started work in Bombay and Calcutta, because cinemas are quite favourite with the people there. ( Of course, there may be other reasons, too. )

(4) *Arbitrary and semi-political reasons* have been the other chief factors in the localization of industries. Thus the patronage of a court was the most important reason for the localization of certain industries of Delhi, Lucknow, Murshidabad and Dacca. The making of things of worship in Benares has its origin in the religious importance of that city. So on and so forth.

(5) *Momentum of the start*—This is another cause for the localisation of an industry. The very fact that a certain industry was started in a particular place is of sufficient advantage in the persistence of the industry there. For example, knives and razors of Sheffield and the watches of Switzerland are reputed through out the world, and it is quite natural that new firms will be started in Sheffield and Switzerland to take advantage of the marks "Sheffield make" or "Swiss make" Examples in India are:—  
Lock industry at Aligarh, metal-ware industry at Moradabad, scissors making industry at Meerut, knife industry at Hathras, sports industry at Sialkot

and blanket making industry at Muzaffarnagar. All these industries were localised at the different places mentioned, for no special reason except that they were somehow or other started in those places once, and those who wanted to start the same industry later on, preferred to establish it there. Earlier firms attract a number of other firms in that industry, and once established the industry stays on, because localisation carries with it many advantages :—

#### Advantages :

(1) *When an industry is localised its products gain a reputation, which secures for them a good market.* Dacca muslins, Murshidabad silks, Kashmir shawls, Jamnagar sarotas, and Aligarh locks, are examples in point.

(2) *Labour and capital become specialised, in course of time, and are easily available.* For example labourers who can make locks and capitalists who are willing to invest capital in the lock industry, can both be had at Aligarh more easily than at any other place, and the parts and accessories for making locks, even ready-made packing boxes of different sizes can be easily had there, although Aligarh is not a very big place. The labourers having a particular kind of skill go to a particular place where an industry is mainly carried on and find a market for their skill, because there are many employees engaged in that industry in that place, and the employers get an abundant supply of skilled workmen ready at hand. Similarly, capital becomes specialised and means of transport



become adapted to the requirements of the industry, e. g., motor lorries and railway sidings and special trucks for special purposes are introduced, resulting both in cheapness and convenience of transport. Localisation of industry sometimes leads to the development of banking facilities even, and thus the industry gets an adequate finance.

(3) *Specialists engaged in several firms can put their heads together*, and devise means for the improvement of the machinery, organisation of the business, the processes of production and marketing of products, also for the adequate supply of finance, raw materials, machinery, etc. Besides, when one firm profits by the experiments, other firms can utilise them promptly.

(4) *Subsidiary industries of all kinds grow up in the locality*, say, for supplying the necessary implements and machinery used in the main industry, or for marketing or ware-housing the products of that industry, or for utilising the waste product of that industry, or even for carrying on other connected industries, e. g., of dyeing and printing at a place where spinning and weaving industry is localised or of gut-making at Sialkot where the sports-goods-making is specialised. As a result of this, it becomes possible for the junior members of the family of a labourer employed in the main industry, to get Jobs in the subsidiary industry and thus add to the income of the family.

However, there are some disadvantages, too, of localisation.

## Disadvantages :

(1) *The locality becomes dependent a little too much on one industry, and if for any reason there is depression in this industry, people are hardly hit and there is a great deal of unemployment and misery.*

(2) *A localised industry suffers also from disadvantages as a market for labour, if the work done in it is exclusively of one kind. For instance, it has been pointed out that in those iron districts of England, in which there are no textile or other factories to give employment to women and children, work is such that only strong men can do it, with the result that the wages of these strong men are high, and, therefore, the cost of labour to the employer is high, but the average family incomes are low.*

(3) *Localization leads to congestion and overcrowding. This raises the house rents and prices, and the consumers of the locality suffer. So both the employer and the workmen suffer.*

The obvious **remedy** is to establish supplementary industries that take up the waste produce, or provide tools and machines which will provide employment to women and children, and thus increase the average income of the family and reduce the high cost of labour in the main industry. These will intensify the evils arising out of 3 above, but they will, to some extent, reduce the evils arising out of 1 and 2. In fact, localisation itself has germs of this remedy—it leads to the growth of supplementary industries.

In recent years, however, there has been a tendency towards decentralisation (Spreading of the industry over a large area). This has become possible because of several important causes—the growing use of electricity, improvements in transport and communication, etc., etc. A great difficulty in the way of decentralisation, however, is of obtaining an adequate supply of suitable labour.

### QUESTIONS

1. Carefully explain division of labour. What are the different forms of division of labour? Give examples.
  2. Describe the advantages and disadvantages of division of labour, and show how it is related to production on a large-scale.
  3. Explain carefully: "Division of Labour is limited by the extent of market." Illustrate.
  4. What do you mean by the localisation of industry? Are there any localised industries in India? What are the causes that bring about localisation? What are its advantages?
-

## CHAPTER 16

# LARGE-SCALE PRODUCTION AND SMALL-SCALE PRODUCTION

### The Scale of Production.—

Production may be on a large or on a small-scale. There are some advantages of each, and that is why both the scales of production have persisted, even in our times. The general tendency, however, is towards large-scale production. A conspicuous feature of the economic life going on all around us is that commodities at present are produced in big factories with the help of most complicated machines, and thousands of labourers work under the same roof and under the same masters. We shall consider below the advantages of this type of production.

[ The whole work of production consists of three parts, viz, (i) work before the production is taken up in the factory, e g., the purchase, and bringing together from outside, of raw materials, machinery, coal or other source of power, etc, etc, (ii) work in the factory, e g, the actual work of production—spinning, weaving, bleaching, dyeing, pressing, etc., etc, and (iii) work after the production in the factory is over and goods are ready for being passed on to the consumers. And, accordingly, the advantages from a particular scale of production relate to these three stages

Those advantages which are derived from (i) and (ii) above are called **external economies**, e. g., cheap purchase of raw materials, better transport facilities and large markets, etc., etc. These are economies which arise out of the general growth of an industry and are *enjoyed by all the firms in that industry*. For example, if machines become very cheap, or, if the industry is localised in a particular area and enjoys the advantages of localisation, e. g., cheap raw materials, better transport facilities, etc., etc. All these economies will become available of their own accord to all the firms in the industry, and all producers will benefit by these economies.

Those advantages which are derived from (ii) above are called **internal economies**, e. g. bringing together the best agents of production, combining them in the most efficient proportion, proper classification of work, effective supervision and control, etc, etc. These are economies which arise within a particular establishment or factory, and are *peculiar to it—they are not due to the general growth of the industry and thus are not common to all the producers in the industry*. For example, if the business is conducted on a large-scale and a producer introduces elaborate division of labour among his labourers, and makes use of up-to-date machinery and effective methods of advertisement, all these economies will make it possible for him to have greater output at less cost. ]

### **Advantages of Large-scale Production.—**

#### **A. ECONOMY IN PREPARATORY EXPENSES**

(1) *Economy in buying* : A large business buys raw materials and machinery in large quantities,

and can settle better terms with the producers of raw materials, fuel and machinery. Even transport becomes cheaper, for railways allow concession rates of freight when full wagons are reserved.

## B. ECONOMY IN PRODUCING OR MANUFACTURING

(2) As a large number of labourers have to be employed on a large-scale, *division of labour can be put to the utmost*, and this is a great advantage. A large business can keep employed every man in his right place and the loss that proceeds from employing higher skill on lower-grade work in case of a small firm can be avoided. Besides, the head of a large business, after securing managers, clerks, foremen, labourers, etc., can leave much of the details of the work to them, and can devote himself wholly to the work of organisation and to the question of policy. In a small industry the head cannot afford to keep specialized men for each department and sub-department. But this can be done in large industries. The head of a small-scale business has to spend much of his time in the details of his business, and has no time for considering larger problems.

(3) *Most up-to-date tools and implements and machinery can be utilised*, and thus the expenses per unit are lower in large business than in a small one. For example, a 20 horse-power engine will do double the work that a 10 horse-power engine can do, and yet it will not cost twice as much as a 10 horse-power engine, nor will the cost of working it be double—a qualified engineer can look after a superior power

engine at the same cost as he can an engine of a low power. Similarly, an ocean steamer of 10,000 tons can carry freight more cheaply than one of 5,000; and one of 20,000 tons more cheaply still. [ The carrying capacity of a ship increases roughly with the cube of its dimensions, in the same way as  $3 \times 3 \times 3$  box holds 27 times as much as  $1 \times 1 \times 1$  box. The bigger ship needs less equipment and fuel and crew per unit of carrying place. And the same general principle applies to steam engines, electric-power plants, water-works, flour mills, etc., etc. ]

Again, many things must be a certain minimum size in order to give a cheap commodity or service. For example, to build a railway, a certain minimum expense must be incurred in making lines, stations, carriages, engines, etc., etc., and unless the volume of traffic is large enough, the cost of service is sure to be prohibitively high. For example, the expenses of running a train from Aligarh to Calcutta will remain almost the same whether the number of passengers travelling by it is large or small, but the cost per passenger in one case will be much higher than in the other case. With a small number of passengers the train service cannot be utilised to full capacity, and the cost per unit is high. In the same way, there is a minimum to the size of a Linotype printing machine, a blast furnace, etc., etc. Such things would not be worth installing if they had to remain idle, because the demand was small, or the number of workers was small.

(4) *Technical experts can be employed in every department, best sources of power can be introduced and huge sums of money can be spent in carrying*

*on experiments and research work* with a view to improve upon the existing methods and to introduce new designs and patterns. A small firm cannot afford to pay six or seven thousand rupees a month to an engineer, or to spend a large sum on hydro electric instal'ation, though 'Tatas have been able to do this

Special workshops can also be started for repairs of machinery and special machines can be used in storage, packing, etc, etc. For instance, Brooke Bond Tea Company can afford to have air-tight packing for their tea, and many ordinary big firms have their own wrappers and cases and whole-time expert packers, and even a separate printing department for printing leaflets pamphlets, cards and wrappers.

### *Economy of utilization of by-products —*

(5) In large scale production, nothing is thrown away. Even small things are made use of. By-products which bring nothing to the small producer and are generally wasted mean a real gain to one who produces on a large scale. A small carpenter, for example, simply throws away the saw-dust, but the owner of a big saw mill either uses it as fuel in his own concern, or sells it to some ice factory in the hot season, and while formerly the husks in a rice mill had to be removed and destroyed, involving some costs to the mill-owner, the boilers and engines are so constructed today that the husks need never be destroyed as they can be used as fuel. Similarly, a big cotton mill can spin the waste cotton into yarn to be used for darries and carpets,



but a small mill cannot afford to set up a fresh machine for the purpose; a large woollen mill can have a department to utilise the cuttings and shreds of woollen pieces and yarn in making felt caps, hats, and blankets; and a large sugar factory can set up plants to manufacture power alcohol from the molasses which are a by-product of the sugar-factory. The utilization of by-products has reached the highest pitch in the food-packing industries of Chicago, where not a hair is wasted of the animals which reach the slaughter-houses—horns hoofs, blood, bones, intestines, hair, even the glands, and the grease on the skins, and marrow in the bones, are utilised for some commercial purpose or the other.

### C. ECONOMY IN DISTRIBUTORY EXPENSES.

(6) *Economy in selling and marketing* : A large-scale business has many advantages over the small business even in selling. Selling of a finished article is very difficult on account of the growing competition of modern times, and advertising and canvassing through travelling and local agents have become almost a necessity. Large firms can spend large sums of money on all these things because the advertising cost per unit is very small when a large output is sold. [ Suppose a firm spends Rs. 10,000/- every year on advertising. If it produces only 10,000 units, the advertising cost per unit will be Re. 1. But if it produces 20,000 units the advertising cost per unit will fall to 8 as. per unit. The larger the quantity sold, the lower will be the selling costs per unit. ]

Besides, in the case of large-scale production a great saving is effected in the cost of carriage from the workshop or factory to the wholesale merchants or the customers. Some factories have their own trucks to carry goods from the factory to the nearest railway siding. Also specially reduced rates for conveyance by land, or by sea, are quoted owing to the consignments being so large.

### **Limitations of Large-scale Production --**

A firm tends to grow large owing to the economies of large scale production outlined above. But there are certain limits to large scale production, and to the economies available in a large scale industry. "A large furnace is more economical than a small furnace but a point comes beyond which further growth is uneconomical." As a firm grows in size not only its advantages but its difficulties also grow. There will be too many machines, too many men and too many departments. And there must come a stage when the machine becomes too unwieldy to manage, when the increasing difficulties of co-ordinating and supervising the work of thousands of individuals and branches will swallow up all the economies of large-scale production. The problem of co-ordination is a most serious problem. "The big firm is a series of wheels within wheels, an elaborate hierarchy, in which every decision requires the consulting of this man, the referring to that man, the permission of a third, the agreement of a fourth, so that decisions become endlessly delayed."

### **First Limitation**

Large scale business cannot always be pushed further due to the operation of the Law of Dimin-

*shing Returns* at a certain age. 'There is a limit to the growth of business. If it went on expanding a point would be reached when the entrepreneur would be unable to control it, and the "costs of growth" would impede expansion. [ *Read the Law of Production, chapter 17.* ]

### **Second Limitation :**

There is danger that the scale of business might be increased *beyond the capacity of the market* to consume the entire produce, and it is evidently no use for a shoe-maker, say, to produce a thousand pairs of shoes per day, or for a cloth-mill to produce a thousand bales of long-cloth, unless they can all be sold in the market. After all, the object of production is sale, and the extent of market determines the scale of production. Thus formerly when producers sold their goods only in their immediate neighbourhood, the market was very narrow and the scale of production very small, while at the present day post, telegraph, railway, steamship, and banking, etc., have widened the extent of the market, and the size of business has enormously increased, too. But after all there is a limit to the growth or extension of markets and to the size of business.

### **Third Limitation :**

*Certain types of business are more successful on a small scale than on a large scale.* For example, first class razors cannot be made wholly by machines—they need the attention of highly-skilled artisans. Painting and photography need individual attention. Shawl-making cannot be taken up on a large-scale. Lawyers and doctors cannot give service to a large

number of people together And, tailoring and hair dressing, etc, cannot be organised on a large-scale Even in the case of agriculture, economies of large-scale production are modified to a very great extent, as the work in agriculture is seasonal and scattered over a large area, and there is not much scope for division of labour Besides, the product may be fairly costly to transport, and the consumers may be in a number of centres scattered over a wide area, so that the gain from producing in a large scale plant would be outweighed by the cost of distributing the product.

### Advantages of Small scale Production —

Small-scale production has certain important advantages peculiar to itself :

(1) The head of a small firm can supervise his business more effectively than a large producer can *The master's eye is everywhere* He can attend to every detail of his business, and there is no shirking of duty or the production of a patchy work by the labourers over whom he keeps a constant watch

(2) There is *no division of responsibility* One man—the head—is the head of all the departments Besides, there is a much closer co operation between the employer and the employed, and as a result of the personal contact between them, *there are no disputes among the labourers and the employers*, while strikes and lock outs are the chief characteristic of the modern industry on a large scale

(3) When the demand for a commodity, or a particular type of it, is not very large, small-scale

production is more suited, e. g., caps and turbans, 'Lungis' and 'Angochhas' 'Saris' and 'Lahngas', shoes and 'chappals' of *different designs and shades* are used by the people living in different villages, and they *can be made to advantage locally on a small-scale.*

(4) Where *things are made to suit individual taste*, e. g., in the painter's or photographer's or tailor's or hair-dresser's business, or where a work needs personal care and attention of the employer to every detail, e. g., in the manufacture of jewellery or of arts and crafts, the small business has an *advantage over big business, which can only turn out things of a standard pattern on a large-scale.* Necessary attention to individual consumers does not permit efficient handling of the processes on a large-scale.

(5) *The head of a small business, can work independently in the congenial atmosphere of his home or workshop with the co-operation of his dependants and relatives or a small number of labourers, but a large business requires an army of workers, who are attracted to the industrial towns along with their wives and children and are compelled to live in slums and to work in the uncongenial atmosphere of the factory. Besides, the master of a small firm has the pride of ownership and sense of freedom which are lacking in the case of workers in a large firm who have often to echo their master's voice.*

It is due to these advantages that the small firm still holds a place in industry. These advantages of small-scale production have increased today due to the invention of small machines driven by

motor, oil, or electricity, and to the better financing and marketing made possible by Co operation. Besides, knowledge of scientific improvements is easily available to the small producer in modern times—through newspapers and books. But the fact remains that large scale production has many advantages over small-scale production, and the latter cannot stand in competition with the former. And thus the tendency to large scale production has become a prominent feature in almost all civilised countries of the world and undertakings now a days are so much larger than they used to be.

### Large scale production in Agriculture —

Though large-scale production is the order of the day, this system of production is *not so well suited to agriculture as it is to manufactures*. There are various reasons for this .—

(i) Manufacturing operations are carried on under the same roof, but *agricultural operations are spread over large areas of land and are of such a varying nature that they cannot be reduced to a fixed routine*. It is not possible, therefore, to make as profitable a use of highly specialised and expensive machinery in agriculture as in manufacture. Agriculture requires cultivators to move about with their tools and implements, and heavy machines cannot be carried from place to place.

(ii) *Division of labour is also not possible in agriculture to any great extent*. For example if we appoint a man for sowing work only, he will have no work to do for a greater part of the year, for sowing cannot go on throughout the year.

(iii) Even *supervision work becomes difficult in agriculture*, for agricultural work is neither continuous nor concentrated, and it would be altogether uneconomical to appoint managers, assistant managers, etc., etc.

(iv) When crops requiring minute attention and personal care from the farmer himself are raised large-scale production is altogether unsuitable. *Flowers, fruits, and vegetables prosper very well when managed on a small scale.*

However, we must remember that there are certain *advantages* which could be secured only when large areas of land are cultivated. A proper rotation of crops, the use of assorted and scientific manures, and specialised implements and machinery, a good-drainage system and good roads generally go with large-scale farming. Large farmers can have a greater command over scientific skill. They can afford to make experiments and introduce new methods of agriculture quickly and advantageously. There is economy in labour by the use of machine ploughs, and also in buying and selling wholesale. Moreover, numerous hedges and footpaths, that divide small fields are got rid of, and there is economy in the use of land.

Thus we come to the conclusion that though large-scale production cannot be carried on successfully to the same extent in agriculture as it can be in manufactures, *there is need for increasing the size of farms in India and for introducing scientific farming on a larger-scale than at present.*

## QUESTIONS

1 What are the chief benefits arising out of large scale production ? Indicate its limitations Give examples and refer to Indian industries

2 How do you account for the fact that small scale business continues to exist in India in spite of the advantages of large scale production ?

3 How far do you think it advisable to introduce large-scale production in Indian agriculture ? Give reasons for your answer

---



## CHAPTER 17

### THE LAWS OF RETURNS

When a farmer, or manufacturer, wants to increase his output, he has to increase the quantity of the various factors of production used in his business. But the results of such increase in the factors of production are not necessarily uniform. In some cases, the producer finds that the returns (i. e. the produce or the output) due to each successive dose (or unit) of land, labour, and capital go on diminishing as production proceeds. In other cases the returns due to each successive dose go on increasing as production proceeds. In still other cases, the returns due to each successive dose remain almost constant. And these tendencies of the returns to go on decreasing, or increasing, or to remain constant, are expressed in Economics as the "Laws of Returns".

If with an increase in the labour and capital, etc., there is a less than proportionate increase in the output, the **Law of Diminishing Returns** ( which is the same thing as the Law of Increasing Costs ) is said to be in operation. For example, if in the case of agriculture

1 dose of labour and capital produces	5 mds.
---------------------------------------	--------

2 doses	„	„	„	„	produce	9	„
---------	---	---	---	---	---------	---	---

3	„	„	„	„	„	12	„
---	---	---	---	---	---	----	---

4	„	„	„	„	„	14	„
---	---	---	---	---	---	----	---

then it is clear that the returns are less than proportionate ( if the returns were proportionate they

would have been like this, 5, 10, 15 and 20 mds. respectively for 1, 2, 3 or 4 doses ) and the law is in operation.

Similary, if with an increase in the labour and capital, etc., there is a more than proportionate increase in the output, the **Law of Increasing Returns** ( which is the same thing as the Law of Diminishing Costs ) is said to be working. For example, if 100 cars can be produced at a cost of Rs. 5,000/- per car, 1000 cars at a cost of Rs 4 000/- per car and 10,000 at a cost of Rs. 3,000/ per car, then this law would be said to be in working.

And if with an increase in the labour and capital etc., the output, or the produce also, increases proportionately ( i.e it is neither less than proportionate nor more than proportionate, e.g. if the cost producing 100 tons of sugar, or of 10,000 tons, or of 10,000,00 tons is the same per ton in each case ), then the commodity is said to be produced under the **Law of Constant Returns**.

These three laws are of special importance in the study of Economics, and are viewed by different writers in different light. Some economists are of opinion that the Law of 'Diminishing Returns is the only law of productivity (or the only law of production), while Increasing Returns and Constant Returns are but passing phases. Others recognise the operation of all the three laws in their respective spheres. We shall discuss both the views below ; but before we do so, let us first try to understand what is known as the Law of Productivity or the Law of Production.

loans and encouraged the formation of coöperative societies. But to have prosperity in agriculture, the coöperative movement has to be made much more vigorous. It must spread from one part of the country to another till every farmer in the country is a member of one coöperative society or another. These societies are going to play a very important part in the future in consolidating the holdings in the country by mutual agreement and exchange of plots among the members of the society, brought about with Government help and under Government supervision. They can also play an important part in providing marketing facilities. The Reserve Bank of India has a special Agricultural Department but no attempts have been made as yet to consider the question on agricultural finance and to break the monopoly of the Mahajan by providing other resources. This should have the Government's attention.

(c) Lastly, a portion of the agricultural population should be diverted to large-scale and medium-sized industries, and to cottage industries, as a permanent vocation; and methods of intensive farming should be introduced on coöperative basis; and a drive to this effect through out the country should be organised with all the vigour of the Government and public agencies. But above all these things, there is the need for educating the peasants, changing their outlook and putting a dynamo—the dynamo of ambition to raise the standard of living—into the village, so that they will go on thinking and working in cooperation with their fellow-villagers and with Government to put things

right The *effect of the present war on agriculture in India* has been very wholesome On account of high prices of food, agriculturist's condition has very much improved And on account of the 'Grow more Food' campaign, with a view to meet the growing demand for wheat, etc, for the fighting forces inside and outside the country, the area under commercial crops like groundnuts, cotton, etc has been diverted to the production of food crops Agriculturists are indeed, in a better position today to reduce the rural indebtedness, and to introduce improvements in agriculture

### Extensive and Intensive Cultivation —

Cultivation is usually of two types—extensive and intensive

*Extensive cultivation* means economising the labour and capital and spreading them over as large an area of land as possible to get the greatest yield Agricultural effort is spread over a wide area Thus where land is abundant and labour and capital are comparatively scarce, as in new countries or thinly populated countries, this system of cultivation is followed, e g, in Canada, United States and Australia An area of land is cultivated until its growing properties are exhausted, whereupon it is given up, and a fresh area is taken into cultivation

But in countries such as England Denmark, Holland and Spain, China and Japan, where the population is large, and the available land is limited *intensive cultivation* is resorted to The use of land is economised, labour and capital are used in sufficient quantity and scientific methods of culti

vation with up-to-date machinery are applied to the various operations connected with cultivation. Natural and artificial manuring, deeper ploughing are usually in practice.

So far as India is concerned, it is an old country and has a large population. We have already seen that the holdings in India are extremely small. It is, therefore, obvious that the salvation of our agriculturists lies in adopting intensive methods of cultivation. But intensive cultivation involves a large outlay of capital, while the Indian cultivators are extremely poor, and have little capital to invest. The result is that *the system of extensive cultivation is common among a large number of farmers in India even where intensive cultivation should be carried on*; and we find to our grief that the yield of wheat in our country is hardly 15 or 16 maunds per acre, while in certain parts of Belgium it is stated to be as high as 45 maunds per acre. Their ploughs are pushed into the soil to the depth of only a foot or so, and the roots of plants cannot go very deep into the soil. They carry on what is known as surface scratching and they sow the seed broadcast, so as to leave ample space between two seeds. This is all extensive cultivation. In fact, intensive cultivation is carried on in India only in the neighbourhood of big industrial towns Delhi, Bombay, Calcutta, etc., *though possibilities of intensive cultivation in the country are immense*, if sufficient capital is forthcoming for agricultural improvements. Thus we cannot carry on extensive cultivation because our holdings are very small, and we do not carry on intensive cultivation because

we have little capital to invest—we combine the disadvantages of both the systems, and enjoy the advantages of neither.

However, it is not to be concluded that extensive cultivation alone or intensive cultivation alone must be carried on in a country at any time. Extensive and intensive cultivation go hand in hand in most of the countries, though the tendency of the times, no doubt, is towards intensive cultivation. In India, too, intensive cultivation is getting more and more common, but the speed with which this is being introduced is very slow. Many cultivators are so backward that they are not prepared to adopt intensive methods, though there is considerable scope for improvement in this direction.

### **Cottage Industries of India.—**

A cottage industry is an industry that can be carried on in the worker's home. The work-place is the worker's cottage itself. The capital is small, and the labour is supplied by the worker, his wife, children and other dependants—sometimes a few hired labourers and apprentices. The craft is often hereditary or traditional, e g, carpet-making, embroidery, brass and metal work, lock works, etc, etc

From the earliest times down to the 19th century, India enjoyed a wide reputation for various handicrafts, which were sent to distant parts of the world, e g, Dacca muslin, Lucknow chintz, Murshidabad silks, Kashmir shawls, Benares and Poona brass and copper wares, etc., etc. Every city in fact, had its own crafts.

Some of these industries have declined, others have disappeared. The reasons are not far to seek. The patronage of the courts has disappeared and the economic policy of the present Government has not been very conducive. European standards and tastes have been generally accepted, and the competition of European manufactures on large-scale has held full sway. Whatever industries are left cannot go on for lack of capital and organisation, and other drawbacks.

There are, however, some industries which, in spite of the formidable competition of machine-made goods, have a remarkable vitality in them, and this is a sufficient testimony of the fact that with a proper supply of capital and other facilities from the State, and the organised support of the public and a strong Swadeshi sentiment, there is a great future for some of these and good hopes for many. Some of the *cottage industries* that can yet be revived and developed are hand-spinning and weaving, embroidery work, artistic brass ware, furniture and wood-work, metal and cutlery, toys-making, soap-making, Bidi making, making of perfumes, making of Saris, production of blankets, shawls, and carpets, silk, wool, hosiery, fruit-gardening, fruit preserving, etc., etc.

The following measures are suggested :—

(1) Education of the craftsmen—Technical education on a national basis, suited to the requirements of each industry, should be given; and the schools should not only train boys, but should have depots for distributing suitable raw materials, improved patterns, and better devices to the workers,

Opportunities should also be provided for experiments and researches, etc

(2) Financial assistance—Cooperative credit societies, and industrial banks should be started in large numbers, loans should be given by the Government from the Industries Department, and from special funds raised for the purpose.

(3) Better tools and implements should be provided to the workmen, and cheap source of power, e g, hydro-electric power must be made available to them in rural areas at cheap rates. Steady supply of good raw materials, too, must be assured

(4) Organisation of markets—Satisfactory arrangements for the sale of the products must be made through cooperative societies and other means. Due weight should be given to advertisement, too, and cottage workers should be brought into touch with Indian and foreign markets both

(5) A strong Swadeshi movement among the people for the use of home made products, and a bolder Government policy of encouraging and patronising artistic industries are also necessary

If these measures are adopted there is no reason why cottage industries should not be able to hold their own. Cottage industries and factory industries must grow side by side in their own spheres. The former are of special importance in the national economy of India, for they provide subsidiary occupations for a large mass of agricultural population, and a source of livelihood to thousands of non-agricultural artisans



[ How have some cottage industries survived in India till today ? Ordinarily cottage industries, except those depending on local demand, ( e.g., pottery, basket-making, fan-making, rope-making, etc., etc. ), have not a hopeful future ; but they have survived the competition of large-scale business so far and will continue to live even in the future, because India is a country of long distances, and poor resources, so far as capital is concerned. The greatest reason, however, for their survival is that India is predominantly an agricultural country, and the farmers have to work on the fields for less than half the year. During the rest of the year, when they are only waiting for the rains or for the harvest, they have no work to do on the field. This time can be well-spent if they have some subsidiary occupation side by side with agriculture. Cottage industries are abundantly suited for this purpose—they provide them not only the means for keeping themselves and their ladies and children even, busy throughout the year, but also a source of additional income. Industries on a large-scale are not suited for this purpose—they cannot be carried on at the farmer's homes, or at intervals ]

Besides, some cottage industries have survived, and are likely to survive, because the demand for the articles produced is so small and varied that a factory cannot profitably be set up. In the case of leather-tanning and shoe-making industry, cheap articles can be produced by the crude old methods. In the case of such industries as oil-milling, the nearness of the market helps the producer on a small scale. And lastly, cottage industries can be carried on by the labourers in neat, healthy, and open dwelling, among the members of their family. For all these reasons their importance in an agricultural country like India is very great, indeed. ]

### **Factory Industries in India.—**

Is India fit for industrialisation ?

Some people think that India has been, and is destined to be, an agricultural country, because she is rich in her natural resources. Others are of opinion that India must be thoroughly industrialised before she can be prosperous. The truth is that a

purely agricultural country and a purely industrial country both have their short-comings. The prosperity of the former is generally fitful, its people are generally uneducated, and it loses much in exchange with manufacturing countries. The latter, on the other hand, may have its food supply cut off, and the supply of raw materials of industry stopped at any moment, e. g., in times of war. It is therefore, a very fortunate thing that India is so placed that it can be an agricultural and manufacturing country both at the same time.

As a matter of fact, agriculture and manufacture do not conflict but go hand in hand. India is an agricultural country, no doubt, but this does not mean that she cannot become a manufacturing country, too. The success of manufacture, in fact, depends, among other things, upon efficient agriculture and a cheap supply of raw materials. India has a cheap supply of raw materials (such as, cotton jute, sugarcane, seeds, hides and skins, wood and timber, bamboo and grasses, iron and other metals), and sources of power (e. g., coal and hydro-electricity); cheap labour and extensive home markets, etc., etc., and therefore, she stands a good chance of becoming a manufacturing country. America was originally an agricultural country, but has now become the foremost manufacturing country in the world; and *there is no reason why India also should not become a manufacturing country like America, if sufficient efforts are made in this direction.* A great impetus has already been given to our industries by the present war.

Our greatest need, however, is that the Government should come to our help.

(i) It should not help Great Britain to prosper at the cost of India. India is at present looked upon only as a valuable source of raw materials which are necessary for the development of manufactures in England, and as an extensive market for selling the produce of British factories. The result is that India continues to be an "over-agricultural", or rather an "under-industrial" country; though it is now acknowledged on all hands that prosperity can come to India only through general policy of industrialisation in the country.

(ii) It should not stop at merely granting a nominal protection to a few industries, or other such hap-hazard, half-hearted measures.

(iii) It should take positive measures to foster and develop Indian industries. Merely appointing a committee or commission, or passing a law here and there to improve the condition of labour and capital or their efficiency, or even the establishing of a few industrial schools, technological institutes and demonstration factories will not do. The time has come when the *Government should form a regular plan for the development of our industries, and should carry on economic planning* on the same lines as has been done in *Russia* under the famous five-year-plan.

Some people, however, are in favour of a revival and rehabilitation of cottage industries side by side with the development of agriculture. They believe that large-scale production makes a few rich at the expense of the many, while in India the lot of the common people has to be improved first. Attention

is, therefore, focussed round rural organisation and development schemes, and even education is being adopted to the needs of the rural population. But unless this is also a part of a general plan of industrial reconstruction by the Government, much success does not seem to be likely. Besides, the present world war has created fresh problems—of unemployment, of reconstruction, and of post war development. Our industrialists have brought out a specific “Fifteen Year Plan” (by Parshottam Das Thackersey, and 7 other colleagues, including Birla) which aims at the development of agriculture and industry both. It is expected that though the Plan would cost Rs 10,000 crores, it will ensure an increase of 130% in agricultural output, and 500% in industrial output during the period, and will raise the income and standard of living of the peasants and workers in the country at least by 100%. There is no reason why this Plan or some similar Plan should not be put into effect for the economic development of India. The standard of living of the masses has to be improved, and a larger production and distribution must be our watch word. And the only way to bring this about is through systematic planning.

### **Some small scale industries of India —**

Besides agriculture which is also carried on in India, we have the following small scale industries —

Handloom weaving all over the country, woollen industry in Kashmir, silk industry in Murshidabad, Benares and Poona, hosiery industry in Lahore, Amritsar and Ludhiana, muslin and conch shell industries in Dacca, glass in Firozabad, Bahjor, Ambala, Bombay and Jubbulpore, leather industry at Madras, Agra, Cawnpore and Bombay, locks at Aligarh, Sialkot and Calcutta, carpentry, making

of perfumes, matches, dairy-farming, tobacco products, biscuits, enamel, ivory-carving, mat-making, blanket-making and carpet making, Durree-making and Niwar-making, Bidi-making and Soap-making, oilseeds-crushing and sugar-making, furniture and wood-work, metal and cutlery, pottery and smithy, etc., etc., at various places. Many of the languishing cottage industries of India have been given a fresh lease of life while many more have been brought into being, as a result of the war.

### **Some Large-scale Industries of India. —**

The principal factory industries of India are cotton, jute and woollen manufactures, iron and steel, sugar, matches, paper, leather, glass, cement and chemicals. An account of some of these is given below:—

(1) **Cotton Industry**—The most important mill industry of India is the manufacture of cotton cloth. There are above 425 cotton mills in India, more than fifty crores of rupees have been invested in the industry and about five lakhs of men are employed in it. Most of the mills are situated at Bombay, Ahmedabad, Sholapur, Nagpur, Cawnpore, Calcutta and Delhi. Lancashire and Japan are, however, serious rivals. Trade pacts were entered into, and a high protective duty was also imposed against Japanese cloth, but these have not been of much avail. The Swadeshi movement, no doubt, has provided a mild stimulus to the industry, but the profits of the industry have not very much increased of the total demand of cloth in our country about 40% is satisfied by cotton mills, 35% by handlooms and 25% by imports.

**(2) Jute Industry**—This is also an important industry, and Calcutta has a considerable share in the world jute trade. There are about 110 mills about thirty crores of rupees have been invested in the industry, and about three lakhs of men are employed in it. Most of the mills are situated in Bengal. India has almost a monopoly of this industry, the only serious rival being Dundee, but most of the owners of the mills are Europeans. Recently, however, Germany and Russia have succeeded in discovering suitable substitutes for jute.

**(3) Woollen Industry**—The industry is entirely financed by foreign capital and managed by foreign enterprise. Progress of the industry is limited by the supply of raw wool which is inferior in quality and meagre in quantity. The finer qualities of wool required for superior cloth are imported from Persia and Australia. The industry is still in the infant stage. There are at the most a dozen mills, the three most important ones being Cawnpore, Dhariwal and Bombay, employing only a few thousand labourers.

**(4) Iron and Steel Industry**—The iron and steel industry is a key industry of very great national importance. The Tata Iron and Steel Works at Jamshedpur along with the 2 or 3 other Steel and Iron Works in the country—Bengal Steel and Iron Works, Steel Corporation of Bengal and Mysore Iron and Steel Works—cannot however, meet the demand of the country. The industry enjoys protection. It has also enjoyed a boom period because of the heavy demands made upon it by the war. But it needs further development, for India's industrial progress depends upon the development

of this industry. It is localised in Bengal, Bihar and Orissa.

**(5) Sugar Industry**—India is the largest consumer of sugar in the world, but the production of sugar, both in quantity and quality, is inferior to that of Java. This industry was given protection in 1932, and, during the last few years, the industry has developed considerably, particularly in the United Provinces and Behar. The area under sugarcane and the number of sugar mills both have increased and gradually foreign sugar is, being ousted from the Indian market. There are about 150 sugar factories in the Country, and India has now become the largest sugar producing country in the world.

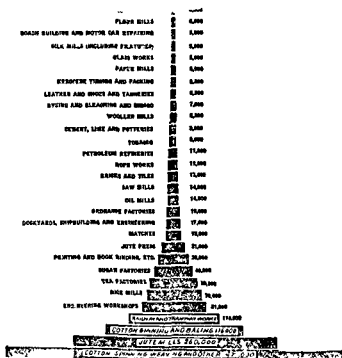
**(6) Match Industry**—It is a new industry for the country, but it is a growing industry and it also enjoys protection. There are about 30 factories in India. Recently the Swedish Match Co. has also started a factory in Bombay to take advantage of protection.

**(7) Paper Industry**—This is another industry that has enjoyed some protection, and there are about a dozen mills in India, several under European management; the most important ones being the Bengal, Titaghur, Assam and Lucknow mills. The principal raw materials used are bamboo and "Sabai" grass the former found in abundance in Bengal and the latter in U. P., Behar and Orissa and Punjab. Waste paper and rags of cloth are also used as ingredients.

**(8) Leather Industry**—Western methods have been used in this industry only recently, and Indian factories yet consume only a small proportion of

hides and skins produced in India. The most important tanneries and factories are at Cawnpore, Agra, Bombay, Madras and Calcutta. The industry needs development. About 75% of Indian production of raw hides and about 45% of the goat and sheep skins are now-a-days locally tanned: but the remainder is exported.

(9) **Glass Industry**—There is yet hardly any factory manufacturing colourless sheet glass but there are over a dozen factories—at Bahjoi, Ambala, Balawali, Ferozabad, Naini, etc.,—producing bottles, lamp ware, flasks, oil pots, inkpots, etc., and a number of other factories manufacturing bangles. Glass factories have not flourished for want of



The above chart will give an idea of the different classes of factories in India, and their comparative strength :—



expert supervision, efficient labour, and cheap fuel, and owing to the difficulty of glass-blowing in hot weather. The industry needs expansion. For the most part, the industry is of cottage variety.

In all there are about 1000 factories and about 20 lakhs of labourers are working in them. This is nothing for a large country like India, anyway the effect of war on all industries has been very wholesome—Industries have profited by even as much as agriculture. All cotton spinning and weaving mills have increased the hours of work from 54 to 60 a week. Iron and Steel industry, jute mills and paper mills, have all prospered. Tea, cement, leather, small scale industries generally are flourishing. Many factories are producing leather goods, boots and belts, and buckles for the soldiers. Munitions production—even ship-building, aeroplane, motor car industry are being attempted. The three common slogans are “Industries harnessed to war ends” “War production programme” National needs must come first. In any case the standard of living of the producers and the workers alike has improved and they are now in a better position to attempt industrialization of the country.



## QUESTIONS

- 1 “Though agriculture is the mainstay of the Indian economic life, it is the most backward of all Indian industries.” Why? How can the situation be improved?
2. What is meant by economic holding? Discuss: “The chief cause of the poverty of the Indian farmer is the scatteredness and the uneconomic size of his holdings.”

3. What do you understand by fragmentation of agricultural holdings ? What are its evils and what remedies do you suggest ?
  4. What is meant by extensive and intensive farming ? Which method is being followed in India ? With what results ?
  5. What do you understand by a cottage industry ? Name a few cottage industries. Indicate the various ways in which you can develop the cottage industries of India.
  6. Account for the industrial backwardness of India. What measures do you suggest for the rapid industrialization of the country ?
-

# TAXATION

## CHAPTER 19

### TAXATION

#### Direct and Indirect Taxes

##### Need for Taxation.—

In modern times the State is expected to do a good many things for the welfare of the people. For example, it has to maintain law and order in the country with the help of the army and the police; it has to administer justice through the law-courts; it has to take care of public health by starting hospitals and nursing-homes, and appointing health officers, civil surgeons, assistant surgeons, etc.; it has to construct roads, railways and canals; it has to manage currency and run post and telegraph offices; it has to undertake agricultural and industrial research; it has to open work-houses, poor houses, etc., etc.

For the proper discharge of these functions, *the State has to spend money and must have sources of income*. The income is generally derived in three forms:—

( i ) **Taxes.**—A tax is a compulsory contribution levied upon persons for the general purposes of government. It is compulsory, and has to be paid whether a particular individual who pays the tax benefits by the services of the State or not. For example, a man may never take the help of the police, yet he has to pay taxes to meet the general expenses of the police.

( ii ) **Fees.**—A fee is a payment made by the citizens to the State for some special services rendered to them by the State. It is not compulsory. It is payable only by those who seek some special

benefit, e.g., court fees and registration fees need be paid only when somebody wants to file a suit or get a document registered.

(iii) **Rates.**—A rate is a charge made when a government performs some service or supplies some commodity in very much the same manner as that service would be performed, or the commodity supplied, by private enterprise, e.g., railway rates, water rates, postal rates, telephone or telegraph rates. It is a sort of price.

The most important of these three are the taxes.

### **Principles of Taxation.—**

Early in the 19th century *Adam Smith* laid down four general principles of taxation, namely :

(i) *Equity.*—“The subjects of every State ought to contribute towards the support of the government, as nearly as possible in proportion to their respective abilities.”

This does not mean that everybody should pay an equal amount of money in taxes—it would be unfair to the poor to expect them to pay as much as the rich people can pay ; but it means that the burden of taxation on different classes of people should be such that there is an equality of sacrifice. Modern economists are of opinion that equality of sacrifice is ensured by progressive taxation, i.e., a man with a thousand rupees should pay tax at a higher rate than a man with only a hundred rupees, for the marginal utility of a rupee to the man with an income of one thousand is much less than the marginal utility of a rupee to the man with an income of one hundred.

(ii) *Certainty.*—“The tax which each individual is bound to pay ought to be certain and not

arbitrary. The time of payment, the quantity to be paid, ought all to be clear and plain to the contributor and to every other person."

This means that the tax-payer should know what amount he is to pay so that he may adjust his expenditure to his income ; and the State should know positively what amount it is obtaining from taxation so that its budget may be rightly framed. Taxes should also be certain as to the time and manner of their payment.

(iii) *Convenience*.—"Every tax ought to be levied at the time or in the manner in which it is most likely to be convenient for the contributor to pay it."

That is to say, it must suit the convenience of the tax-payer. Thus income tax is paid at the time of receiving salaries and land revenue is paid at harvest time, when tax-payers are in a position to pay.

(iv) *Economy*.—"Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the Public Treasury".

The meaning of this is that the cost of collection should not be so large as to leave no substantial amount of surplus of tax after the cost of collection has been paid.

To these four principles of taxation, modern economists have added the following:—

(v) *Productivity*.—The tax should be such that it brings sufficient revenue to the State. A small number of highly productive taxes are better than a large number of taxes each yielding an insignificant amount.

Also, the tax should be such as not to diminish the economic resources or the productive capacity

of a country. For this reason, a tax on the exports of goods is considered bad. Similarly, a tax on home products, e.g., on sugar and matches, is considered bad. Both discourage production in the country, and reduce the amount of national dividend, and, ultimately, the amount of tax also.

(vi) *Elasticity*.—The tax should be such that the income from it to the State may easily expand with its growing needs.

“The system of tax should contain at least some taxes which will permit of an increase in the rate and in the yield without necessitating a large increase in expenditure on administration or collection.”

The income tax and customs duty are examples of elastic tax. By just raising the rate of the tax a little we can realise a large revenue without any addition to the administrative machinery. Land revenue, on the other hand, particularly under the Permanent Settlement, affords an example of an inelastic tax.

(vii) *Simplicity*.—The tax system should not be complicated, but should be simple, plain and intelligible to all.

It is in the light of these principles that the worth of a tax can be judged. It is however, necessary to remember that a tax should be judged not by itself, but as forming part of a system. The shortcomings of one tax may sometimes be made up by the excellence of another.

(viii) *Variety*.—In the past the main burden of taxation rested on land only—land under the Moghul Kings was the chief source of income. But new sources of income have now arisen. A modern

system of taxation includes a great many taxes designed to reach all sections of the public.

(ix) "*An old tax is a good tax and a new tax is a bad tax*". an old tax is a good tax because people become accustomed to paying it (the only good point about land revenue tax is that it has been paid since ages); a new tax is generally disliked, and we must "pluck the goose with as little squealing as possible."

### **Kinds of Taxes.—**

#### *(a) Direct and Indirect Taxes:—*

"A direct tax is one which is demanded from the very person who, it is intended or desired, should pay it." Thus in the case of the direct taxes "the tax-payer is also the tax-bearer," e.g., the income tax and the death duties.

"An indirect tax is one which is levied on one person but borne, partly or wholly, by another. It is levied with the intention that it will be shifted to others, and thus the tax-payer is not generally the tax-bearer, e.g., customs duties, excise duties, salt tax, amusement tax, etc. These taxes are paid by one class of persons, say the producers or the dealers, and are passed on another class of persons, say the consumers.

*Note :* The person on whom a tax is imposed is said to receive the *impact* of the tax. If he can shift its burden on to the shoulders of another, that person is said to have the *incidence* of the tax on him. In a direct tax the impact and the incidence are on the same person. For example, an income tax is levied on A, then the impact of the tax will be on A, and as he will also have to bear the tax, the incidence of the tax also will be said to be on A because income tax is a direct tax. Not so in the



case of indirect taxes. For example, if an importer of motor cars, pays a duty on motor cars, he will naturally raise the prices of motor cars to the same extent, and though the importer may pay the duty in the first instance, the duty has ultimately to be borne by the consumer or the buyer of the motor car, and in this case the impact is on the importer while the incidence is on the consumer.

(b) *Proportional and Progressive Taxes.*—Proportional taxes are those which vary in direct proportion to the amount of the income or property taxed, e.g., a general income tax of one anna in the rupee would be a proportional tax. It would increase with higher income but not at a growing rate; and if a man with an income of one thousand rupees pays one thousand annas, a man with an income of two thousand will pay two thousand annas only.

Progressive taxes, on the other hand, are those whose rate increases with an increase in the amount of income, e.g., the rate of income tax in India is progressive, for the higher the net income of a person the higher is the rate at which he is taxed. People earning between 2000/- and 5000/- have to pay six or seven pies in the rupee, people earning between 5000/- and 10,000/-, nine or ten pies in the rupee, people earning between 10,000/- and 15,000/- more than one anna in the rupee, etc., etc.

*Note.*—If the rate of tax diminishes with an increase in the income or the value of the commodity taxed, instead of increasing, we have *regressive taxes*, e.g., salt tax the burden of which increases as income decreases, and vice versa.

### **Direct and Indirect Taxes compared.—**

The advantages of direct taxes are :—

( i ) *Economy* —The cost of collection is low, as these taxes are paid direct to the State by the

payers. In many cases, they are collected at the source of the income, for example, the amount of income tax due from professors of the college is deducted from their salaries and sent to the income tax department by the college itself.

(ii) *Certainty*.—The tax-payer knows exactly what amount he has to pay and at what time and to whom, and the Finance member also can estimate its income fairly and accurately. Every one knows his position well.

(iii) *Equity*.—Direct taxes are just and equitable, because the rich are made to pay more by applying the principle of progression to the system of taxation, e.g., the income tax in India.

(iv) *Productivity and Elasticity*.—Some direct taxes, for example, the income tax, are very productive. They are a source of large income to the State. They are also very elastic. That is, the revenue from them can expand by a slight increase in the rate of the tax to meet the growing demands of the State. For example the addition of an anna to the income tax rate will yield a considerable sum of revenue without any additional cost, and people will not like to earn less simply to evade payment of the additional tax.

(v) *Educative effect*.—In paying a direct tax the payers are made to feel that they contribute in person to the State for the maintenance of peace, order, justice, and for serving the best interests of the people. Therefore, they take an intelligent interest in the spending of the national income, and whenever the State becomes negligent in the performance of its duty, there is an agitation among them, e.g., a few years ago people started a no-rent campaign in India, because they thought that the

Government was not spending the revenues in the proper way. Thus direct taxes exercise an educative influence on tax-payers. It is said that if you had only direct taxes you would have economical government. Indirect taxes, on the other hand, make the government reckless, and prodigal expenditure is encouraged

The disadvantages of direct taxes are:—

( i ) *Inconvenience and unpopularity.*—The payment of direct taxes in lump sum at certain times is not as convenient as the continuous payment of very small amounts in the case of indirect taxes on articles of consumption. Many people prefer to be taxed “in the dark,” and thus direct taxes are never popular and are always resented.

( ii ) *Possibility of Evasion.*—A direct tax is called “a tax on honesty.” People are always trying to evade the payment of the tax, by submitting false statements, etc.

The advantages of Indirect taxes are:—

( i ) *Indirect taxes provide a convenient method of taxing the poor.* They reach even the poorest sections of the people, as, for example, the salt tax in India. Besides, indirect taxes on luxuries exact contributions from those who indulge in luxuries and are best able to afford such payments. Thus through some indirect taxes the masses can be reached, through others those who indulge in luxuries.

( ii ) *Convenience* —Indirect taxes are not felt by people and are less inconvenient than direct taxes. Payment of small amount of taxes on commodities is very conveniently made at the time of purchase and the tax-payer does not feel the burden. The payer frequently does not know that he is paying a

tax. For example, in every pice worth of salt that we purchase we pay some tax, though we never pause to think of it.

(iii) *Difficulty of Evasion*.—It is difficult to avoid the payment of indirect taxes when such taxes are included in the price of commodities purchased.

(iv) *Indirect taxes on such commodities as drugs and drinks perform a social and economic service* in restricting consumption of articles which are harmful, at the same time that they raise the income of the State. (This is, of course, different from the educative effect of direct taxes.)

### **The disadvantages of Indirect taxes are :**

(i) *Inequitable*.—Indirect taxes are on articles of general consumption and press more heavily upon the poor than upon the rich. They are, therefore not just. For example, a poor man has to pay as much on salt as a rich man although the marginal utility of a pice to the poor man is much greater than to the rich man.

(ii) *Uneconomical*.—Indirect taxes are uneconomical because (a) they become very expensive to collect. In many cases they lead to smuggling and supervision becomes costly and (b) they raise prices and thus discourage the sale and manufacture of commodities.

(iii) *Uncertain*.—The revenue derived from indirect taxes is not certain. The Finance Member cannot accurately find out the amount of revenue that will be placed at his disposal as the sum is depended on conditions of trade and industry.

(iv) *Indirect taxes do not exert an educative influence* on the people as the direct taxes do. The payers of the indirect taxes do not realise that they are making contributions to the government, and

their civic consciousness is not stimulated in proportion to the payment made; so they are not led to take a keen interest in matters of the state.

The balance of advantages and disadvantages is clearly in favour of direct taxation ; but a proper system of taxation is one which judiciously combines in it both direct and indirect taxes. In advanced countries, like U. S. A., England and France, direct taxes are becoming the rule. But there is too little of direct taxation and too much of indirect taxation in India, with the result that rich people are not contributing a fair share of their income towards the expenses of the State. The introduction of more direct taxes, e.g., inheritance tax and higher income tax, steps in the right direction.

### QUESTIONS

1 Distinguish between a direct and an indirect tax. Discuss the relative advantages and disadvantages of both of these kinds of taxes by taking examples from the Indian system of taxation.

2 What objections have you to the following taxes —

- (a) Salt tax (*Ans.* It falls more heavily on the poor)
- (b) Opium duty (*Ans.* The state should not supply opium, as the use of it is harmful.)
- (c) Excise duty on sugar (*Ans.* It discourages production)
- (d) Octroi duty (*Ans.* It is very inconvenient)
- (e) Indirect taxes generally (*Ans.* Being taxes on articles of consumption, they are bad—they raise prices)
- (f) Duties on drinks, liquors and articles of luxuries (*Ans.* No objection)
- (g) Death duties (*Ans.* They prevent the accumulation of capital. But this is not an important objection. These taxes are justified on the ground that they have to be paid by men of property. They have not been introduced in India so far)

3. Who have to bear the following taxes :—

- (a) Duties on exports (*Ans.* Such duties raise prices and diminish the exports and thus the exporters suffer ; but if articles taxed are in the nature of monopolies, they may be able to pass on the taxes to the consumers.)
- (b) Duties on imports (*Ans.* When these are imposed for raising income only, they have to be borne by the consumer in the shape of higher prices, e. g., the duty on motor cars. But when they are imposed for protecting home industries, the foreign producers have to suffer, as they raise prices of foreign goods, encourage home production and bring in competition and thus diminish the imports.
- (c) Duties on home products, e. g., duties on sugar, matches, etc. (*Ans.* These raise prices in the country, and both the producers and the consumers suffer )

## CHAPTER 20

### TAXATION IN INDIA

#### Imperial, Provincial and Local

##### History of Taxation in India

Originally there was one budget for the whole of India and the different Provinces in the country were mere collecting and spending agencies of the Government of India. That is to say, all the revenues were paid to the account of the Government of India, and the Provincial governments got fixed contributions only to meet their expenses.

This system did not work properly, because, in the first place, as the Provinces got fixed sums only, they did not exercise proper care and economy in realising the taxes from the people, and, secondly, every Province tried to have as large a contribution from the Central Government as possible and there were frequent quarrels between the different Provinces and the Central Government of the country.

As a result of this, a system was introduced in 1871 by which certain local heads of expenditure, as Registration, Medicine, Jails, Education, Roads, Police and Civil works were given over to the Provinces along with the departmental receipts from these heads. Some similar improvements were introduced in 1877, and again in 1882, 1904 and 1912. Finally the sources of revenue were reshuffled and divided under three heads—(1) Imperial heads—customs, salt, opium, railways, mints, posts and telegraphs, and receipts and tributes from the States, (2) Provincial heads—forests,

registration, and receipts from departments like law and justice, education, jails, etc., (3) Divided heads (i.e., which belonged both to the Imperial and the Provincial governments)—excise, stamps, irrigation, income-tax and land revenue. The fields of expenditure also were similarly demarcated.

This system also suffered from several defects. The Provincial governments had no independent powers of taxation and borrowing. The control of the Central Government over the Provincial Governments was very rigid. And there were financial inequalities among different Provinces.

The Reforms of 1919 solved many of these difficulties. In 1920-21 a clean cut was made between the Imperial and Provincial finance, and some powers were also given to the Provinces to levy new taxes and raise loans for financing development schemes, such as irrigation, forests, communications, etc., though of course in many cases previous sanction of the Central government was still necessary. The divided heads of revenues were abolished and revenue and expenditure were newly allocated as follows:—

( i ) *Imperial heads of revenue*—Customs, income-tax, salt, opium, railways, currency and mint, posts and telegraphs, military receipts.

( ii ) *Provincial heads of revenue*.—Land revenue, irrigation, excise, forests, stamps and registration.

Subsequent to this, in 1936. the Niemyar Committee recommended financial help to certain provinces in the form of cash sub-ventions, and in the form of a 50% share in the amount of income-tax realised. And, side by side, provincial



autonomy was introduced. This is the position at present.

### **Classification of Indian Revenues.—**

Indian revenues can be conveniently classified according to the taxing authorities as found in India at the present time. They are (a) the Central government (b) the Provincial governments, and (c) the various Local Bodies—Municipalities, District Boards, and Port Trusts ; and accordingly we have (a) Central Finance, (b) Provincial Finance, and (c) Local Finance.

The total revenue and expenditure) of the Central government in rough round figure amounts to about 100 crores annually on the average, of all Provincial Governments put together to about another 100 crores, and of the Local bodies, that is, the municipalities and district boards, all put together, to about 40 crores at the present time, however, as a result of the war these figures may be put from at 500 crores, 160 crores and 50 crores respectively.

We shall now consider Central, Provincial, and Local finance in further details below:—

**Central Finance.**—i.e., the finances of the Government of India.

The present war began in Aug. 1939. Before this the income and expenditure of the Government of India used to be as follows : —

# MAIN HEADS OF INCOME AND EXPENDITURE OF

## The Government of India

### Central Budget

1938-39.

#### Heads of Revenue—

Customs Duty (including Central Excise Duties)	Rs. 50	crores
Income Tax	16	„
Salt Tax	9	„
Opium Duty	1	„

#### Heads of Expenditure—

Direct Demands on Revenue, i.e., collection charges of these taxes	4	crores
---	---	--------

Defence Services	5	„
Debt Services	1	„
Civil Administration	1	„
Posts and Telegraphs	1½	„
Currency and Mint	1	„
Miscellaneous and Extra ordinary	6½	„

Railways	Rs. 33	„
----------	--------	---

---

Rs. 125 „

---

Defence Services i.e. (military)	56	„
Debt Services	13	„
Civil Administration	12	„
Posts and Telegraphs	1	„
Currency and Mint	½	„
Different payments to Provincial Govts.		
Miscellaneous, and Extraordinary	8½	„

Railways	Rs. 30	„
----------	--------	---

---

Rs. 125 „

---

But war has upset everything. Both the income and expenditure have gone up tremendously—while the total income and expenditure in 1938-39 were approximately 95 crores calculating the income from railways as 33 minus 30 crores i.e. 3 crores only), the total income in 1944-45 has been put down in the budget at 285 crores and the total expenditure at 363 crores. The main changes have been as follows :—(a) The expenditure on the military has gone up from 50 crores to 300 crores. (b) The income from customs has fallen, owing to the shrinkage in our foreign trade, but the loss from this source has been made up by increased income from Central Excise Duties on tobacco, matches, sugar, motor spirit, kerosine oil, tyres and tubes, Vanaspathi Ghee, tea, coffee and betel-nuts.

(c) The income tax receipts have gone up 8 or 9 times including, of course, the Excess Profits Tax (d) The income from railways, posts and telegraphs, and currency and mint too have all gone up considerably.

Here are the budget figures from 1944-45 —

<i>Revenue</i>		<i>Expenditure</i>	
Customs Duty (including Central Excise Duties)		Direct Demands on Revenue	
	69 crores	that is, the	
Income Tax	182½ "	charges for	
Salt Tax	9½ "	collection of	
Opium Duty	¾ "	all these	
Other taxes	2½ "	taxes	
Debt Services			7½ crores
(interest	1½ ,	Debt Services	20½ ,
Civil Administration		Civil Administration	
and Civil Work	2 "	and Civil Works	21 ,
Currency and mint	10 "	Currency and Mint	2 ,
Posts & Telegraphs	11½ "	Posts and Telegraphs	½ "
Receipts in connec		Defence (Military)	
tion with war	11½ "	Service	276½ "
Receipts from		Contribution to the	
Indian States	¾ "	Provincial Govern	
Railways net con		ments and miscel-	
tribution	31½ "	laneous adjust	
		ments	4½ "
	332 ~ "	Miscellaneous	8 ,
		Extra ordinary King	23 ,
Deduct share of in			
come tax revenue			
payable to			
Provinces	23½ "		
	308½ "		
Deficit	54½ "		
	363 crores		363 crores

Note — Budget figures for the Government of India for 1945-46 are —

Income	353 74 crores	
Expenses	517 63 "	(out of this sum military expenses are expected to be 412 crores)

Deficit 163 89

And the total public debt of India amounts to about 1700 crores

Note — Budget figures for great Britain (1944-45) are —

Income	£ 20,29 millions
Expenditure	£ 6 063

and Englands internal debt amounts to £ 16,000 while overseas debt to £ 5 000

## Comments.

1. *Customs duties.*—The income from this source has been steadily increasing. It is derived from the duties on (i) exports—such as raw jute, manufactured jute, tea, raw hides and skins, and rice, and on (ii) imports such as cotton, cloth, iron and steel, sugar and many articles of luxury, e.g., motor-cars, playing cards, cinema films, cigars and cigarettes, on almost all the things that are imported.

[In India customs duties are of 2 kinds (i) revenue duties which are levied for the general purposes of the State e.g., the duty on cigars and cigarettes, (ii) protective duties which are levied for the protection of our industries, e.g., the duty on matches or sugar. There are also preferential duties, e.g., Japanese cloth is taxed at a higher rate than Lancashire cloth.]

Formerly customs were not a very important source of revenue. Forty years ago, the revenue from customs was only 3% while it has now gone up to 25%. *Income from this source has been steadily increasing.* During the present war, however, the income has temporarily gone down. Foreign trade has declined owing to shipping difficulty and due to the fact that trade with Germany, Japan has ceased altogether, and with a decline in foreign trade, there has been a decline in this source of income too.

Besides customs duties, some excise duties are also charged. These are duties on the production and manufacture of certain commodities in the country itself, e.g., on matches and sugar, motor

spirit and kerosine oil, tea and coffee, betelnuts and tobacco, Vanaspati Ghee, tubes and tyres, have also been recently added to the list of commodities that pay excise duties) These duties are not popular, as they discourage home industries (These are known as Central Excise Duties and are different from the excise duties on intoxicants and liquor, etc., in the provinces]

2 *Income tax*—Income tax is also a growing source of revenue. Incomes below 2 000/ a year are exempted from payment of the tax. Incomes above 2 000/ pay at the following rate —

	Rate per rupee
On the first Rs 1500/	nil
„ „ next 3 500/	15 pies
„ „ „ 5,000/	25 „
„ „ „ 5,000/	40 „
„ the balance of total income	50 „

In case of companies and registered firms, whatever the income, 50 pies in the rupee

*Note* Super tax is also charged in respect of incomes over 25,000 at rates increasing up to as high a figure as 126 pies per rupee (over 5 00,000) (companies are, however, charged at a flat rate of 18 pies in the rupee). Excess Profits Tax was introduced in March 1940, is also charged on incomes over Rs 30 000. It provides for a levy of 66½ per cent on all abnormal war profits and this added to income tax, and supertax and surcharges on them, works at a total of about 15/3 in the rupee on very high income, say of several lakhs.

Thus our income tax is a progressive tax. It is also a source of increasing income.

3 *Salt tax* It is a tax levied on all salt consumed in the country and produced either by the

government or under government supervision. It is highly unpopular tax as the people of India are extremely poor; and this tax falls on them. Gandhi movement centred round this problem in the beginning. The Finance Member of the Government of India, however, thought that this tax cannot be abolished, as that would mean a sacrifice of a large amount of revenue, it was an old tax, and so should not cause hardship.

4. *Opium duty*.—The government has a monopoly for the production and sale of opium in the country and all opium is subject to duty.

Not long ago this duty used to yield a handsome income to the government, but it has suffered almost a total collapse, and *the income from this source is almost negligible today*. In 1906 the Chinese Government requested the Indian Government to help them in the stoppage of its use, and, as a result of the efforts of the League of Nations and consequent Geneva agreements, an agreement was made with China for the gradual diminution and ultimate extinction of the export of opium from India, except for medicinal or scientific purposes. Naturally as China was our chief buyer of opium, revenue has gone down very much.

5. *Defence services*.—The income shown under this heading is accounted for by a number of items, the most important of which are rents from property in cantonment areas, and the sale of different kinds of rejected military stores, or the payments made by Native states for the loan of troops to them. The expenditure shown under this heading is the military expenditure of the government of

India This is as shown by the figures much too heavy for a poor country like India, and is very much resented. In years before the war, the government had begun to reduce this expenditure gradually, and Indianisation was also proceeding, but with the war everything has been upset, and the expenditure on military now is simply staggering

6 *Debt services* —The income shown under this head is accounted for by the interest received on loans granted by the Central government to the provinces and native states etc The expenditure shown under this heading is the interest paid every year on railway capitals and other loans taken by the Government at different times and for different purposes

7 *Civil administration* —This is also a costly item in expenditure This includes expenses on salaries and allowances of heads of governments, charges of Secretariat, civil services, expenses of legislation, political department, education, science, aviation, etc etc It has been a frequent complaint that the administration is costliest in the world considering its poverty It is top heavy, i.e. the men at the top get high salaries and are allowed to waste large sums of money on foolish pageantry, while the lower staff is low paid, and there is much scope for reform here The revenue under this heading consists of receipts from the various administrative departments of the government in different shapes

8 *Posts and Telegraphs* —The primary object of the Government is not to raise revenue but to provide a cheap and easy service Small profits have, however, been made

The rates are cheap enough considering the long distances—also as compared with other countries, but poverty of the people pleads in favour of a  $\frac{1}{2}$  anna post card again.

9. *Currency and Mint.*—The paper currency department and the minting of small token coins have been a source of some profit to the central government. With the transference of the paper currency control to the Reserve Bank in April 1935, the income from this source has diminished, but the loss is to some extent made up by the share which the government will get in the profits of the Reserve Bank according to the provisions of the Reserve Bank Act.

10. *Railways.*—Many of the railways are the property, of the State, and have been built for public convenience, not with a view to making profit. They are however, managed by the Railway Board on purely commercial basis and the net receipts only are credited to the central Budget, from which are also paid the interest charges on the capital invested on the railways.

11. *Direct Demands on Revenue.*—This item represents the expenditure incurred by the government in collecting customs duties, income tax, salt tax, opium duty, etc.

### **Provincial Finance.—**

As we have already seen each province now maintains its own finance department with a Finance member who almost enjoys a full liberty in the management of his provincial revenues.

The main sources of income and the main items of expenditure in our own Province may easily be seen from the following Budget for 1938-39.—



**Budget for U. P. (1938-39)**

<i>Income</i>		<i>Expenditure</i>	
Land Revenue about 6 crores	}	Direct Demands Revenue about 1½ crores.	
Excise (Provincial), 1½ "			
Stamps " 1½ "			
Forests " ½ "			
Registration 10 lakhs			
Receipts under Motor Vehicles Act " 10 "			
Other taxes " 25 "	}	Irrigation " 1 "	}
Irrigation " 1½ crores		Debt services " ½ "	
Debt services " 11 lakhs		Civil administration, i.e.	
Civil administration & civil works i.e.,		General administration	
Justice		Justice	
Jails		Jails	
Police		Police	
Education		Education	
Medical and Public Health		Medical & Public Health	
Agriculture		Agriculture	
Industry		Industry	
Civil Works		Civil works	
		Scientific Research	
		Aviation	
Adjustments between the Central and the Provincial Governments and Miscellaneous ¼ crore		Miscellaneous 1½ crores	
(appxly.) 13 crores			
Deficit 15 lakhs			

13 crores 15 lakhs

13 crores 15 lakhs

The Budget estimates from the United Provinces for 1945-46, however, are about 24 crores. That is the income and expenditure during the year are expected to be so much.

## Comments

(1) *General Position.*—The financial position of the U. P. budget is not a happy one. Borrowing has to be resorted to meet the expenditure and the debt services.

One great complaint of the U.P. Government as of all other Provincial governments has been that the Government of India has retained for itself elastic (i.e., expanding) sources of revenue such as customs and income-tax and inelastic (i. e., stationery) items of expenditure, such as military services, while Provincial governments have been assigned sources of revenue which are stationery, such as land revenue or which are actually decreasing, such as excise duty on liquors and drugs and other intoxicants, while they have been entrusted with items of expenditure which are constantly expanding such as education, agriculture, industries, public health and others, on which no amount of expenditure can be regarded as too great. The result is that the nation-building departments such as education, agriculture, industries, public health, etc. have to starve.

(2) *Land Revenue.*—This is a dwindling source of revenue—about 40 years ago land revenue contributed 50% of the total receipts of the government. It now contributes only 20%.

(3) *Excise.*—It is a duty levied on intoxicating liquors, Ganja, Bhang, Toddy, Hemp, drugs, etc. The main object is the suppression of the evil habit of drink. It is levied in the form of a duty on manufacture and fees on sale licenses. The major portion of the income is derived from the sale of country liquor. [There are another class of excise duties (central) which are levied, solely with the

object of getting revenue on home products like sugar and matches See central budget ]

The revenue under this head is also dwindling as a result of the prohibition campaign started in the Provinces

(4) *Stamps* —Revenue derived from the registration of deeds and documents of sale, transfer, leases, etc (not postage stamps for they come under central budget)

(5) *Forests* —The revenue derived from the sale of timber and other produce, grazing grass and license fees for permission to cut wood and other produce, comes under this heading Provincial governments make a large profit from this source

(6) *Irrigation* —The revenue under this head comes in the form of water rates charged for supply of water from the canals Expenses is incurred in the extension of tube wells and other irrigation facilities by the government

(7) *General (civil) administration*—Expenses are increasing under this heading Economy should be possible in salaries, allowances and pensions, etc, granted to superior staff

(8) *Police*—Expenses are increasing because of more crimes being committed daily

(9) *Education* —Expenses are no doubt increasing, but they are still inadequate More should be spent under this head—for primary compulsory education as well as technical education and it is good that the subject has lately been receiving the attention of our government which has started a regular campaign against illiteracy

(10) *Agriculture and Industries*—The provincial Governments are generally averse to spending more on industries, because revenues resulting from

increased income would go to Central Government. But expenditure on these items is as necessary as on education.

### **Local Finance.—**

In addition to the Central and Provincial Governments, local authorities are also empowered to raise revenue from rates or taxes to discharge their duties.

The local authorities are municipalities, district boards, port trusts, etc. (Municipalities in Bombay and Calcutta and Madras are known as Municipal Corporations.) The local bodies are governed by the acts passed by Provincial Legislatures and are subject to the control of the Provincial Governments. The importance of local self-government is very great in modern times.

### **The main sources of income of a District Board are.—**

1. *Government grant* from the Provincial funds.
2. *Local rates or cesses* levied upon agricultural land over and above land revenue.
3. *Taxes on circumstances and property.*—[This is a sort of income tax levied by District Boards in various parts of the country on incomes other than agricultural. This is an important source of income, and brings about 6 crores of rupees annually to the different district boards. Incomes upto Rs. 300/- per annum are exempted, incomes between Rs. 300 and Rs. 1,000 pay 4 pies in the rupee. The maximum limit, however, of this tax upon individual assesseees in one year is Rs. 2,000.]
4. *Cattle pound receipts.*
5. *Tolls on ferries and bridges.*
6. *Receipts from education, e.g., fees in schools.*

7 *Medical receipts*, e g , receipts from the sale of medicines, etc , by the District Board hospitals

8 Receipts from *markets and shops, fairs and exhibitions*

9 *Income from property* belonging to the District Board, e g , rent of building and sale price of land received

10 Receipts from *agriculture*, seeds and implement depots, sale of trees, etc

**Main items of expenditure of a District Board are —**

1 *General administration*, and cost of collecting taxes

2 Construction, maintenance and repair of buildings to serve as *cattle pounds*

3 *Schools and education*

4 *Hospitals, dispensaries and care of public health* by appointing health officers, arranging for inoculation and vaccination, prevention of epidemic diseases and supply of pure water, medicines, etc etc

5 *Veterinary*—pay of staff, price of medicines and other equipments

6 *Holding of fairs, agricultural shows and industrial exhibitions*

7 *Agriculture and arboriculture* —experimental cultivation, maintenance of gardens, parks, etc

8 *Public works*, like the construction of roads planting of trees, establishment of markets and rest houses, etc

9 The prevention and reclamation of soil and the drainage and reclamation of swams, etc , etc

**The main sources of income of a Municipal Board are.—**

1 *Grants and contributions from the government*

2 *Octroi duties* levied on articles of general consumption entering the town This is a very important source of income to the Municipal Boards More than half the income is from this source

3. *House tax and Land tax.* This is another important source of income to the municipalities.

4. *Taxes on animals and vehicles.*

5. *Taxes on trades, callings and professions.*

6. *Toll taxes on roads, ferries and bridges.*

7. *Sale of water—water tax.*

8. *Sale of light—Lighting rates or Electricity rates.*

9. *Rent of property, municipal markets, slaughter houses, etc.*

10. *Sale of land, vegetables, fruits, etc.*

11. *Education fees.*

12. *Conservancy receipts.*

13. *Receipts from cattle pounds.*

14. *Cycle tax, wheel tax, etc.*

15. *Fines and penalties for breaking municipal laws.*

**The main items of expenditure of a Municipal Board are.**

1. *General administration and collection charges, e.g., office expenses, inspection, stationery, printing, etc.*

2. *Fire prevention.*

3. *Lighting expenses.*

4. *Water supply.*

5. *Drainage.*

6. *Conservancy, road-cleaning and watering.*

7. *Hospitals and dispensaries.*

8. *Vaccination, inoculation, prevention of epidemic diseases etc.*

9. *Veterinary charges, and Rewards for Destruction of wild animals, etc.*

10. *Markets.*

11. *Slaughter houses.*

12. *Public instructions, i.e., schools, etc.*

13 *Public works*

14 *Registration of births and deaths*

15 *Libraries, museums, parks, exhibitions, etc*

The incomes and expenditures in the case of different municipalities and district boards in India greatly differ according to the size and population

The total annual income and expenditure for all the 789 municipalities in the country works out at 15 crores, and of the 207 District Boards (with 584 sub district boards and 455 Union Panchayats in Madras) at about 16½ crores

Thus the progress of local bodies has by no means been satisfactory in the country Their number is very small, their resources are very poor and their administration is far from satisfactory The result is that we have colossal ignorance in the country, and people have no idea of citizenship or sense of civic beauty and utility

### QUESTIONS

1 Draw up a statement showing the important heads of revenue and expenditure of the Government of India How far has the present war affected Indian finance ? Explain fully

2 What are the chief sources of income and items of expenditure of the Government of the U P Arrange them in the order of importance and comment on each of them Has the Government got adequate funds to meet their requirements

Also point out what economies in the expenditure and what additional sources of revenue you would suggest for the Provincial Governments to better the economic welfare of the people

3 What are the important sources of income and items of expenditure of the municipal boards in the U P ? Comment briefly on each of them

4 Analyse the sources of income and the items of expenditure of the district boards in the United Provinces

## **VOLUME II**



**EXCHANGE**

## CHAPTER 1.

### WHAT IS EXCHANGE ?

#### What is Exchange.—

We have seen that man's wants are not simple now-a-days. They are so many that he cannot himself produce all goods required to satisfy them. For example; he himself cannot make all articles of food and clothing, shoes, house, and a hundred and one other articles of comfort and luxury that he requires.

Similarly, production is not simple nowadays. We have combination of labour or division of labour and large-scale production. Man cannot himself consume all the goods that he produces. For example, a man specialises himself in the production of shoes that he can produce best. He makes a large number of shoes, but does not use them all himself.

Thus both the consumer and the producer depend upon the system of exchange which brings them in touch with each other, and makes it possible that what is produced may reach the consumer and what the consumer needs may be produced; so that every person now parts with the commodity or service of which he has a surplus, and obtains by exchange that of which he feels a shortage. The word exchange in Economics, therefore, refers to the interchange of things and services for one another and the arrangement by which this is brought about. It is the connecting link between production and consumption.

The branch of Economics which deals with problems of exchange is also called **Exchange**. It discusses the problems in relation to the demand for and supply of commodities, the theory of value, the extension of markets and the services performed by money, credit and banking. All these problems will be taken up one by one in this branch.

### **Conditions of Exchange.—**

In an act of exchange there are always two parties, each of which willingly undertakes to exchange a commodity which one possesses for the commodity the other offers. For example, if A offers an apple willingly to B in exchange for B's banana and B is also willing to have A's apple rather than keep his banana, an exchange will take place. And if exchange is to take place, there must be two parties to the bargain; and both parties must gain in utility by exchange.

### **Forms of Exchange.—**

Exchange may be

(i) by Barter;

(ii) by Sale and Purchase.

#### **Exchange by Barter.**

It means exchange of commodities ( things ), or services, for commodities ( things ), or services, i.e., when no money is used in exchange and one thing is directly exchanged for another, e.g., a piece of cloth or utensil for the services of a barber or a washerman.

#### **Exchange by sale and purchase.—**

When exchange is brought about through the medium of money we call it an exchange by sale and purchase. First the seller sells the things of

which he has a surplus, for money, and then with this money he buys the things he requires. In other words, barter is split up into two processes--sale for money, and purchase with this money.

Now, whether the exchange is by barter or by sale and purchase with money, the two parties to the exchange must gain in utility, or there will be no exchange. Let us see how.

### **Both parties gain in utility by Exchange.—**

Suppose A has two apples, and B has two bananas. When A has eaten one apple he feels that he had better have a banana than his second apple. Similarly, when B has eaten one banana, he feels that he had better have an apple than his second banana. So A gives away his second apple to have the second banana from B, and both have an apple and a banana each. Naturally both gain in utility—that is, the satisfaction each feels for his new possession is greater than what he derived from his old one. In the same way, if A purchases a commodity, say, for Rs. 5 from B, A purchases it because he attaches greater importance to the commodity than to Rs. 5/-; and B sells it because he attaches greater importance to Rs. 5/- than to the commodity; and both gain by the transaction.

A man acquires an amount of a commodity whenever he finds that its marginal utility is higher to him than the marginal utility of the amount of the commodity by the sacrifice of which he can obtain it. A man gives an amount of a commodity when he finds that its marginal utility is lower

to him than the marginal utility of the amount of the commodity which he can procure in exchange for it. A difference between the marginal utility acquired and the marginal utility sacrificed is an essential condition of exchange. Exchange continues, and can only continue, so long as there is a prospect of this gain. It stops as soon as this gain to any of the two parties disappears. This is what is meant when we say that both parties gain in utility during an exchange operation.

To take a more elaborate example, suppose A and B are the owners of seven apples and seven bananas respectively, and suppose that the utilities of the two commodities to them are as follows —

Marginal utility of apples to A i.e., the utility of the successive apples A is going to part with to B	Prospective utility of bananas to A i.e. the utility of the bananas that A expects to receive from B	Marginal utility of bananas to B i.e., the utility of the successive bananas B is going to part with to A	Prospective utility of apples to B i.e., the utility of the apples that B expects to receive from A
(1) 60	70	100	90
(2) 50	60	90	70
(3) 40	45	70	40
(4) 30	30	50	35
(5) 20	15	40	30
(6) 10	5	30	20
(7) 8	4	15	10

When A gives away one of his apples, he loses 8 units of utility (i.e., the marginal utility of the 7th apple) but gets 70 units of utility

( i. e. the prospective utility of the 1st banana) by having a banana. The bargain is advantageous to A. Similarly, B gives away 15 units of utility on parting with one of his bananas and gets 90 units of utility by having an apple from A. And the bargain is advantageous to B also. A will continue exchanging till he finds on comparison that on giving up the 4th apple he loses 30 units of utility and gains also 30 units of utility by getting the 4th banana. He becomes indifferent at this stage. Later on still, he finds that in giving the 5th apple he loses 40 units of utility while in getting the 5th banana he gains only 15 units. Therefore, A will be quite willing to exchange three of his apples with three of B's bananas, and he may be willing to exchange even the 4th apple with the 4th banana but will not be willing to exchange the 5th or the 6th or the 7th apple for the 5th or the 6th or the 7th banana. Similarly, B will continue exchanging till B finds on comparison that on giving up the 3rd banana he loses 40 units of utility and gains also 40 units of utility by getting the 3rd apple. He becomes indifferent at this point, and later on finds that in giving the 4th banana he loses 50 units of utility and gets only 35 units. Therefore, B will be quite willing to exchange two of his bananas with two of A's apples, and he may be willing to exchange the 3rd banana with the 3rd apple but will not be willing to exchange the 4th or 5th or 6th or 7th banana for the 4th, 5th, 6th, or 7th apple. Thus it will suit A to exchange upto 4 of his apples for 4 bananas

while it will suit B to exchange upto 3 of his bananas for 3 apples. But B will under no circumstances exchange the 4th banana with the 4th apple because in that case he is a loser. Under the circumstances, three apples will be exchanged for three bananas. A in giving 3 apples will lose  $8+10+20$ , i.e., 38 units, and in getting 3 bananas will gain  $70+60+45$ , i.e., 175 units; while B in giving 3 bananas will lose  $15+30+40$ , i.e. 85 units and in getting 3 apples will gain  $90+70+40$ , i.e., 200 units. Thus A will gain  $175-38$ , i.e., 137 units, and B will gain  $200-85$ , i.e. 115 units.

In the same way, whenever there is a voluntary exchange between two parties, there is always a gain to both the parties to the exchange. But under some circumstances this gain may disappear. For example, the act of exchange may not be voluntary, and in that case it is not necessary that both the parties will gain—say, a policeman may catch hold of an *ekkawala* and make use of the *ekka* for the whole day and then pay him only a four-anna piece. Or, there may be misrepresentation by one of the parties to the exchange—say, the seller of a commodity may give out that he is selling gold and may charge a high price accordingly, but may actually pass on brass or some other cheap metal. Or again, a labourer may have to accept whatever wages are paid to him according to custom, although he may be getting less than what he is worth. Thus, we come to the conclusion that though there is a gain in utility to both the parties, this is true only when there is free competi-

tion among them, and there is no force or fraud practised nor the influence of custom allowed to come in.

The same is true of two countries or two nations. When they carry on trade between them, both the countries or nations gain, provided they are of equal economic strength and there is perfect competition, that is, those goods are imported by both nations which are more advantageously produced in one than in the other and those goods are exported of which there is a surplus in the exporting country or which can be more preferably produced by the exporting country than by the importing country. Of course, if the countries or nations are not of equal economic strength, the stronger nation may exploit the weaker nation, and check its economic progress. This is actually happening in India—the English people are exploiting the natural resources of India for their advantage. But this is an exceptional case, too. [ *Read foot-notes on pages 16 and 17.* ]

### QUESTIONS

1. Define exchange. What are the conditions of exchange ?
  2. Show that every exchange implies a gain in utilities to the exchanging parties. Are there any circumstances under which such a gain would disappear ?
  3. Show how both parties gain in utility by exchange. Do both nations gain likewise by foreign trade ?
-



## CHAPTER 2.

### MARKETS

#### INDIA'S FOREIGN TRADE

##### What is a Market.—

A market is commonly thought of as a place where commodities are bought and sold. Thus fruit and vegetables are sold in the *Subzi mandi*, and cloth is sold in the *Bazara*. But there are markets for things other than commodities, in the usual sense—foreign exchange markets, labour markets, and so on; in fact, there may be a market for anything which has a price. And there may be no particular place to which dealings are confined. Buyers and sellers may be scattered over the whole world, and, instead of actually meeting together in a market-place, they may deal with one another by telephone, telegram, cable, or letter. A market has, therefore, been defined as “any area over which buyers and sellers are in such close touch with one another that the prices obtainable in one part of the market affect the prices paid in other parts”.

BENHAM.

Here are two other definitions:—

‘Market is not any particular market-place in which things are bought and sold but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same kinds of goods tend to equality, easily and quickly’. COURNOT.

‘The term refers not necessarily to a place but always to a commodity or commodities and het

buyers and sellers of the same who are in direct competition with one another.' CHAPMAN.

Thus to constitute an economic market two things are essential :

(a) a group of buyers and sellers.

(b) competition among them.

The essential feature of a market is free competition, the test of which is *one-price*.

### Perfect and Imperfect Markets.—

A market is said to be perfect when all the sellers and buyers are promptly aware of the prices at which transactions take place and of all the offers made by other sellers and buyers, and when any buyer can purchase from any seller, and conversely. In such a market the price of a commodity will tend to be the same everywhere, of course after allowing for transport charges incurred, import duties paid, etc., etc. If one seller is prepared to accept less than others, orders will stream towards him until he is sold out or raises his price to that asked by others, and if he demands more than others, he will find no purchasers, for buyers will not go to him in case they can get the same commodity more cheaply from others.

A market is imperfect when some buyers or sellers, or both, are not aware of the offers being made by others. Thus the market for second-hand books is imperfect. It is very often possible for a customer to buy a book from one book-seller, and re-sell it at a profit to another. Similarly, it is very often possible that some shops may sell suit cases

## CHAPTER 2.

### MARKETS

#### INDIA'S FOREIGN TRADE

##### What is a Market.—

A market is commonly thought of as a place where commodities are bought and sold. Thus fruit and vegetables are sold in the *Subzi mandi*, and cloth is sold in the *Bazara*. But there are markets for things other than commodities, in the usual sense—foreign exchange markets, labour markets, and so on; in fact, there may be a market for any thing which has a price. And there may be no particular place to which dealings are confined. Buyers and sellers may be scattered over the whole world, and, instead of actually meeting together in a market-place, they may deal with one another by telephone, telegram, cable, or letter. A market has, therefore, been defined as “any area over which buyers and sellers are in such close touch with one another that the prices obtainable in one part of the market affect the prices paid in other parts”.

BENHAM

Here are two other definitions:—

‘Market is not any particular market-place in which things are bought and sold but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same kinds of goods tend to equality, easily and quickly’ COURNOT.

‘The term refers not necessarily to a place but always to a commodity or commodities and het

buyers and sellers of the same who are in direct competition with one another.' CHAPMAN.

Thus to constitute an economic market two things are essential :

(a) a group of buyers and sellers.

(b) competition among them.

The essential feature of a market is free competition, the test of which is *one-price*.

### Perfect and Imperfect Markets.—

A market is said to be perfect when all the sellers and buyers are promptly aware of the prices at which transactions take place and of all the offers made by other sellers and buyers, and when any buyer can purchase from any seller, and conversely. In such a market the price of a commodity will tend to be the same everywhere, of course after allowing for transport charges incurred, import duties paid, etc., etc. If one seller is prepared to accept less than others, orders will stream towards him until he is sold out or raises his price to that asked by others, and if he demands more than others, he will find no purchasers, for buyers will not go to him in case they can get the same commodity more cheaply from others.

A market is imperfect when some buyers or sellers, or both, are not aware of the offers being made by others. Thus the market for second-hand books is imperfect. It is very often possible for a customer to buy a book from one book-seller, and re-sell it at a profit to another. Similarly, it is very often possible that some shops may sell suit cases

for a rupee or two more than other shops in the same town. However, the development of communications during recent times—telegraph and telephone, cable and wireless—has tended to smooth out the price differences between different centres and to make markets less imperfect.

### Local market and World market —

If the competition is limited to a small area or locality the market is called *local*, e.g., in the case of over ripe fruits, etc. If the competition is world wide, that is, buyers and sellers compete for the commodities all over the world, the market is called *world market*, e.g. in the case of gold, or silver, cotton, or wheat.

In a local market buyers and sellers are often face to face, in a world market they may be separated by long distances and may deal with one another by correspondence, telegraph, telephone wireless, etc.

Modern means of communication are so rapid that the market for anything today may be taken to be the whole world, and the main reason why certain things have not a world market is that they are costly or difficult to transport.

[Just as we have world markets and local markets, we may have national markets and provincial markets, etc. When the whole demand for a commodity is concentrated in one country, or to the people belonging to one nation, the commodity is said to have a **national market** e.g., the market for "Dhotis" or for "Gandhi Caps" in India. Again, if the demand for a commodity

ty is confined to a province, the commodity is said to have a **provincial market**, and so on. Of course, such commodities may be supplied by firms in other parts of the world, to be sold in the province or the country where they are demanded. ]

### **Extension of market.—**

The modern tendency has been towards the extension of the boundaries of the market for any given commodity ; and the factors that bring about the growth and extension of markets may be classified as follows:--

#### **(a) External causes :**

( i ) *Efficient means of transportation and communication.* All buyers and sellers must be in easy and speedy communication with one another by means of steamship, post, telegraph, telephone, railway, wireless and airship, and also the printing press, so that they may be in business intercourse and in direct competition with one another.

( ii ) *Sound system of currency and banking.*

( iii ) *Peace, order and security.*

#### **(b) Internal causes (attributes of the commodity):—**

(i) *Wide demand.* The commodity should be such as is in universal demand, e.g., cotton, wheat, gold, and silver; otherwise the market will be limited to the particular region in which its purchasers are found as it happens in the case of Jaipur 'safas' or Lucknow 'dupalli' caps, which are only in local demand.

(ii) *Large supply.* The supply also of the commodity must be large if it is to have a wide market,

Rare paintings and other curios do not ordinarily command a wide market.

(iii) *Cognoscibility* ( capacity for being correctly described by samples, grading etc ). A commodity which can be correctly described is likely to have a wide market because it can be bought and sold at a long distance simply by a correct description of the thing, and a commodity can be fully and correctly described if it is suitable for sampling, grading, or for easy and exact description, e g, cotton and wheat can have a wide market while cattle and raw wool are obviously not purchasable without inspection. Other examples of things that are having wide markets are Elephant Brand Kerosine oil D 1 long cloth, Scissors's Cigarettes, etc, etc,

(iv) *Portability* In order to be able to command a wide market, the commodity should be such as carries great value in small bulk, e g, gold and silver, and silks and diamond, otherwise, the cost of transportation will be prohibitive. Bricks, for example, cannot afford the cost of carriage, but Jaipur marble, being higher in price, has a good market all over India at least.

(v) *Durability*. Commodities which are not durable generally have a narrow market e g, fish, fruits, and vegetables, meat and eggs, cannot stand long storage in ships and railways while being transported. But modern devices, like cold storage, air tight packing and refrigeration ( preserving with ice ) have made these things acquire a world

Oranges from New Zealand, mutton from

Argentine, eggs and bacon from Canada, green vegetables from Holland, and butter from Denmark adorn the dining table of an English family; while Shillong pine-apples, Bombay 'Alphonso' mangoes, Muzaffarnagar 'leechies', Bombay and Calcutta bananas, Kulu and Kashmir apples, Kabul and Chaman grapes, Aligarh butter, even potatoes from Italy, apples from Japan, and dates from Arabia are sold all over India.

### **The foreign trade of India.—**

The discussion of markets takes us to the trade of India. The trade of India can be studied under (1) internal trade and (2) foreign trade. The former includes the trade between different towns and different provinces in the country as also the trade conducted along the coast-line and meant to carry articles from one port of the country to another part. The latter refers to the trade between India and the different countries or different nations, and includes the imports and exports of the country, i.e., the goods India gets from other countries and the goods India sends to other countries.

The internal trade of India has increased to a large extent lately, particularly during this period of the world war; but the volume of the internal trade is yet small as compared with the size and population of the country, and a further development is necessary. The position of coastal trade also is not satisfactory, and a comprehensive programme of port development, the building of an Indian mercantile marine, and a proper co-ordination between coastal and railway traffic is necessary.



As regards the foreign trade, the chief features of the foreign trade\* (i.e., the import and export trade) of India are as follows:—

---

### Foreign Trade or International Trade\* -

By foreign trade or international trade of a country we mean the trade between different countries or between different nations. For example, India sends goods to other countries (exports) and gets goods from other countries (imports), and the exports from India and the imports to India constitute the foreign trade of India. When a country exports more than she imports, she is said to have a favourable balance of trade when she imports more than she exports, she is said to have an unfavourable balance of trade, though there are other factors, too, that are to be taken into consideration.

### Advantages of foreign trade

(i) Foreign trade enables the principle of division of labour, to be applied to the international trade, that is to say, nations, like individuals, begin to specialise in the production of a particular commodity, and each country is induced to produce that commodity in which it has the greatest advantage, i.e., in which the comparative cost is least.

### The theory of Comparative Cost

This theory tells us that every country tends to produce, not necessarily, those goods which it can produce more cheaply than another country, but goods which it can produce comparatively more cheaply in its own country. Suppose there are two countries A and B, each producing two commodities  $x$  and  $y$ . In A one unit of the factors of production can produce either  $10x$  or  $15y$ . In B one unit of the factors of production can produce either  $10x$  or  $20y$ . Now if A produces both  $x$  and  $y$ , and B also produces both  $x$  and  $y$ , then 2 units of the factors of production will enable a production of  $10x+15y$  in A and  $10x+20y$  in B, that is,  $20x+35y$  in all. But if A produces only one commodity  $x$  (for between  $x$  and  $y$  she can produce  $x$  better) and if B also produces only one commodity  $y$  (for between  $x$  and  $y$  she can

( i ) The first important feature is that *her principal exports consist of raw materials and food products, whilst her imports consist almost wholly of manu-*

---

produce  $y$  better ), then 2 units of the factors of production will enable a production of  $2 \times 10x$  in A and  $2 \times 20y$  in B, i.e.,  $20x + 40y$  in all. And thus in the latter case there will be a gain of  $5y$ , which will be divided between the two countries.

We see then that according to this theory each country produces that which it can produce at a comparatively less cost; and that is why we find that though England can produce butter and cheese both as cheaply as Denmark, she does not produce these commodities but gets them from Denmark in return for her manufactures because England can produce manufactures comparatively better than butter and cheese, while Denmark can produce butter and cheese comparatively better than manufactures; and both the countries gain in advantage. [ This theory is only an extension of the principle that we observe in our every-day life. The Principal of a college can type his letters better than the office clerk, but does not type his letters himself and devotes himself wholly to the work of the Principal. I can read and write at the same time that I can cook my food better than my cook, but I devote myself to reading and writing only, etc., etc. ]

( ii ) Foreign trade makes available for home consumption supplies from all parts of the world. No country can produce everything that it requires. India is deficient in silver, tin, petroleum, etc. England cannot produce jute or tea. These countries can get these things by engaging in trade with other countries.

( iii ) The very fact of goods being imported shows that the price is cheaper than that of a similar home product, e.g., when India purchased dyes from Germany, she was getting the thing at the lowest price possible.

( iv ) Foreign trade makes it possible to transport raw materials produced in a backward country to some other country which can put them to the best use, etc., etc,

*factured products.* She exports oilseeds to European countries only to get them back in the form of purified oils, she sends metallic ores and gets pure metals and machinery, she exports cotton and gets cloth, etc., etc.

(ii) Another important feature is that *her exports are generally in excess of imports so that the balance of trade is always favourable to India* (in 1941-42, the exports exceeded imports by about 61 crores); *but she does not get gold or silver in return for the entire amount of excess.* A large portion of this is spent away by the Government of India in meeting the Home charges in England, and in paying interest, shipping and insurance charges, etc., etc. [*About 98 per cent of sea borne trade is carried on in foreign ships and freight has to be paid. Similarly insurance premiums have to be paid to foreign insurance companies. Again, a large amount of foreign capital has been invested in India and interest has to be paid. Expenses of the India Office, and the salary of the High Commissioner in England, pensions, etc., have also to be paid [These are all known as Home charges.]*]

#### Disadvantages of Foreign Trade.

(i) The natural resources of a country may be exploited to the greater advantage of other nations. For example, the coal mines of a country might be emptied, or the iron deposits might be exhausted, or the law of diminishing returns may begin to work in agriculture.

(ii) Foreign competition may be harmful for some industries. Cottage industries of India have suffered on account of competition from outside.

(iii) The third important feature is that *the bulk of our foreign trade is carried on with the United Kingdom*. Forty per cent of our imports are from the United Kingdom and thirty-two per cent of our exports are to the United Kingdom. Formerly about 64% of imports used to come from the United Kingdom but lately Japan and United States became formidable competitors of United Kingdom in the Indian market. Germany also regained the markets that she had lost during the first European war. In the present war, however the imports to and from Japan, Germany, Italy, and other enemy countries have completely ceased and most of our foreign trade now is with Great Britain and the U. S. A.

*Note :* To improve her position in India's foreign trade, Great Britain has from time to time tried to encourage trade between her and the colonies and the dependencies through the scheme of Imperial Preference\*; the Ottawa pact\*, etc., which are discussed in the footnotes below.

#### Imperial Preference\* :

About the close of the 19th and the beginning of the 20th century when the era of Britain's industrial supremacy in the world began to close, and, on account of competition from Germany, America and Japan, Britain's share in the trade of the world began consistently to decline, several conferences of the various units of the British Empire were held and serious attempts were made to meet the situation. The result was the adoption of the policy of Imperial Preference—a scheme designed to encourage trade between the mother country (i.e., Great Britain) and the colonies and the dependencies. According to this, colonies of the British Empire could impose protective duties on all goods imported into the country, but after having protected their own industries against foreign competition, some

(iv) The fourth important feature is that India has followed mainly the free trade\* policy, and manufactured goods of foreign countries can easily enter into the country without paying much of duty. What is needed is a policy of protection \*

---

preference was to be given on goods manufactured by members of the British Empire, e.g., if India imposed a duty of 40% on foreign cloth for the protection of her industry, she would only impose a duty of 20% or 30% on goods imported from Empire countries, while they also, in their turn, would give such preference to the imports of goods from India into their countries

India was asked several times to adopt this policy, but the people did not approve the idea. They thought that India could not get much from the scheme—she could not expect substantial preference from Great Britain, and preference of any value from the British colonies, while she could not give substantial preference to British manufacturers without causing serious loss to Indian industries. However, in 1931, an official delegation was sent to Ottawa where an Imperial Conference was to be held and this question was also going to be discussed. In this conference the Indian delegation accepted the policy of Imperial Preference. This policy worked for 5 years, and did something to improve the position of Great Britain in India's foreign trade, but did not benefit India in any way. It was more advantageous to Great Britain than to India, and the Legislative Assembly (Central) vehemently opposed it, with the result that the Ottawa agreement could not work for long.

**Free trade \*—**

When a country does not impose any restriction on the entry of foreign goods, it is said to have *free trade*. Generally no duties are levied on the imported goods, or, if any duty is levied, the amount of the duty is usually fixed at a low rate, merely for the purpose of raising revenue for the state.

**Protection \***

When the Government wants that the home industries should

(v) The foreign trade of India has declined in

be encouraged, and foreign goods should not be allowed to compete with them, it imposes a duty (or a tax) on the imports of foreign goods into the country, so that on account of this duty the prices of foreign goods may become higher and it may, therefore, become difficult for them to find a market in preference to the home-made goods. The levying of this tax, or the taking of other such steps towards protecting the home industry from the competition of other countries, is known as *protection*.

Many people are of opinion that there should be no restrictions in trade between different countries or different nations. That is to say, goods made in India should be allowed to sell in other countries without their having to pay in those countries any other charge except that of cost of transportation, and similarly goods made in foreign countries should be allowed to reach Indian consumers without any other charge. The advocates of this doctrine allege that the producer and the consumer both gain when there are no restrictions.

The producer gains because he gets a free opportunity of producing those things that he can comparatively produce better than others and when every country is producing whatever she can produce best, production on the whole benefits (read the doctrine of Comparative Costs). The consumer gains because he can get things cheap. Protection imposes a heavy burden on the consumer, because when high import duties are levied on foreign goods, the prices rise and consumers suffer; while this is not so in the case of free trade. Besides, if one country discourages the imports from another country by imposing duties, there is no reason why the other country should not retaliate by imposing an equally high duty on the goods of the former country imported into it. Protection is a game in which more than one can play.

But in the practical world we find that every country wants to safeguard its own interest first; and almost all the countries of the world have been trying in one form or the other to protect their own industry from the competition of other coun-

*recent years, but still it is considerably 'greater*

---

tries. England only used to be a great advocate of free trade formerly. Since the days of the Industrial Revolution England found herself at a great advantage as compared to the rest of the world in the matter of production. She could produce cheaper than other countries could, there was no danger to her of imports from other countries, and the policy of free trade very well fitted in with the conditions prevailing in the country. But since the time of the Great war even England has adopted the policy of protection.

In the case of India, there was free trade upto 1921, but in 1921-22, the policy of protection was decided upon in certain cases by the Indian Fiscal Committee appointed by the Government. In pursuance of the recommendations of the Committee the Indian Tariff Board was appointed to examine the claims of industries which desired protection, and this Board has been from time to time, making proposals to the Government of India regarding duties to be imposed on such goods as steel, cotton, sugar, matches, leather. Because the policy of protection has not been adopted wholesale, but only in the case of certain industries, it has been known as the policy of *discriminating protection*. That is, before imposing import duties on any article for purposes of protection, it is very well examined whether it will do good to the particular industry. The Tariff Board examines such questions, then submits its report and makes certain recommendations to the Government.

The Tariff Board before granting protection to any industry considers the following questions—

(a) Only those commodities are to be protected which are widely consumed, and are very important from the national point of view, e g, iron industry, cotton industry.

(b) The industry to be protected should be such that after receiving protection, it begins to be produced in large quantities and the price of the commodities becomes cheaper than before. That is to say, the commodity should be a manufacturing article

than it was a hundred years ago. The total value in 1864 was 85 crores of rupees. Before the great war, i.e., about 1914-15, it was about 425 crores, and in 1928-29 it rose to 600 crores, but now (1941-42) it has gradually come down to about 410 crores.

The *causes of growth* in foreign trade in the beginning of the 20th century were the establishment of peace and order, improved means

---

and not an agricultural product which may have to suffer from the operation of the law of diminishing returns.

(c) The industry should be such that it has not to depend upon other countries for raw materials, labour and capital necessary for the production of that particular industry. That is to say, the protected industry should be purely Indian concerns, started with Indian capital, run and managed by Indian labour, using Indian raw materials, and should have a big home market so that it may not have to look to other countries for its sale.

(d) Above all, the industry should be of such a nature that after sometime, it may stand on its own legs, and the amount of protection given to it in the beginning may be withdrawn after sometime, and yet it may be able to face world competition. This is known as the *infant industry argument*. Just as an infant can have no chance of success in its fight against a fully-grown up man, similarly, an industry in the infant stage cannot manufacture things as cheap as the old established producers of other nations, and, therefore, so long as the industry is an infant industry, it should be helped to develop by means of protection. To put it in another way, just as the children need the fostering care of their parents during the period of their infancy, so the feeble and newly started industries need be carefully protected during their years of weakness. But as soon as the industry has gained ground, and finds it possible to stand on its own legs, the help should be withdrawn, and the industry should be left to compete with other countries. Our policy should be "nurse



of communication, rapid growth of mercantile marine, opening of Suez Canal and the construction of a network of roads and railways in India. The *causes of decline* in later years were the general depression in trade all over the world, and the fact that there was some development in home industries as a result of the great war. These began to utilise the raw materials in the country

---

the baby, protect the child, and free the adult. The unfortunate thing, however, is that this is only a pious hope which is never realised. Once the industry becomes used to the help in the form of protection, it cannot afford to lose it, and the influential people in the industry make it almost impossible for the Government to withdraw the help once begun. This has been the case in America and Germany, etc., and even in India we find that though cotton industry is a fairly old industry, the mill owners are still clamouring for protection.

The Tariff Boards have so far recommended protection for Iron and Steel industry, the Cement industry, the Ink industry, the Paper industry, the Match industry, and finally the Cotton and Sugar industries. They rejected the claims of magnesium, petroleum, coal and the Textile industry to protection. But Indians feel that a more satisfactory and scientific system of protection is necessary for our industries.

*Arguments generally urged in favour of Protection are*

(1) The home markets should be secured to the producers within the country as long as hundreds of our countrymen are unemployed, foreign products should not be allowed to enter the country. 'When you buy manufactured goods from abroad we get the goods and the foreigners get the money. When you buy the manufactured goods at home we get both the goods and the money,' says an American writer.

(2) India started in the race for industrialisation long after other nations had done, and cannot compete with

itself and thus shut out foreign products proportionately. The immediate effect of this naturally was to curtail the volume of foreign trade slightly. For example, less cloth began to be imported than used to be imported before, because Indian cotton mills also began to supply cloth to the Indian market; and less iron began to be imported, too, because the Tata Steel and Iron works very successfully carried on the smelting of iron ore in the country itself and began supplying steel and iron goods to the country. Similarly, with the development of sugar industry, the imports of sugar considerably declined; and with the development of paper industry, imports of paper declined.

---

other countries successfully—it is practically a competition between a giant and an infant, and therefore needs protection for some time. [ Read the infant industry argument above. ]

(3) India is an “over-agricultural” and an “under-industrial” country. It is not desirable that we should depend only on agriculture. A larger number of industries must be encouraged in the country. This is possible only by affording protection to new industries.

(4) India is one of the few countries in the world which can become self-sufficing, the other countries being United States of America, Russia and China. Why should it not have national strength and independence, when nature has provided opportunities to her? “Defence is better than opulence”, and we must have self-sufficiency, even at the sacrifice of economic interests, if necessary.

And even though on economic grounds the policy of free trade may be the best between nations; which are in a state of comparative economic inequality, protection is necessary in the case of countries which are backward,

*The present World War has also brought about great changes in the foreign trade. Because trade with enemy countries, e.g., with Germany, Italy and Japan, has altogether ceased, and because there has been an acute shortage in shipping, etc., the foreign trade has considerably declined. Another noteworthy feature has been that the share of the British Empire and its Dominions and Colonies in our foreign trade has increased, and so have the shares of U. S. A. and China increased. One more change has been that the proportion of manufactured articles in imports has declined while the proportion of manufactured articles in exports has increased, which means that there has been some industrial progress of India during this period of war.*

#### **Chief Exports of India.—**

*The chief Exports are as follows:—*

<i>Articles</i>	<i>Countries to which exported</i>
(1) Jute, raw and manufactured.	Raw :— Germany <sup>o</sup> , Great Britain, U.S A., and others Manufactured (gunny bags) :— Australia, Great Britain, South Africa, and others
(2) Cotton, raw and manufactured	Raw.— Japan <sup>o</sup> , China, Germany <sup>o</sup> , Great Britain Yarn and cloth :— China, Africa, Persia, India and others.
(3) Rice	Ceylon, Germany <sup>o</sup> , China, and others.
(4) Wheat	Great Britain, France, Belgium, Iraq.

(5) Tea	Great Britain, Canada, America and Iran.
(6) Oilseeds	France, Germany <sup>◊</sup> , Great Britain, Australia
(7) Hides and Skins	Germany <sup>◊</sup> , U. S. A., Great Britain, Italy <sup>◊</sup> .
(8) Gold	Great Britain.
(9) Manganese ore	Great Britain, Europe, U.S.A.
(10) Lac	U.S.A., England, Germany <sup>◊</sup>

### Chief Imports of India.—

The chief *Imports* are as follows:—

<i>Articles</i>	<i>Countries from which Imported</i>
1, Cotton Manufactures	Great Britain, Japan, <sup>◊</sup> U.S.A.
(2) Metals, iron and steel	Great Britain, Germany <sup>◊</sup> , Belgium, and America.
(3) Machinery, inclu- ding railway plant	Great Britain, Germany <sup>◊</sup> , and U. S. A.
(4) Mineral oils ( Petroleum and Kerosine ).	U. S. A. and Russia.
(5) Motor Vehicles	U. S. A., Great Britain, Canada.
(6) Silk	China, Japan <sup>◊</sup> , England, Italy <sup>◊</sup> .
(7) Artificial Silk	Italy, Great Britain, Japan <sup>◊</sup> .
(8) Woollen Goods	Great Britain, Germany <sup>◊</sup> , Italy <sup>◊</sup> , Japan <sup>◊</sup> .
(9) Drugs and medi- cines	England, Germany <sup>◊</sup> , U.S.A.
10) Paper and Paste board.	Canada, America, Norway, Sweden, Japan <sup>◊</sup> .

# IMPORTS AND EXPORTS IN LAKHS OF RUPEES

## 1942-43

### ( War-Time )

Imports		Exports	
Grain, Pulse & Flour	31	Grain, Pulse & Flour	712
Sugar	2	Tea	3168
Oils	2728	Oils	144
Cotton raw & waste	1542	Seeds	1057
Wool raw	295	Cotton raw & waste	538
Chemicals, Drugs and		Jute raw	901
Medicines	639	Hides and Skins	482
Dyes and colours	542	Metals	190
Machinery	1053	Cotton ( yarn and	
Cotton ( yarn and		manuf )	4686
manufactured)	137	Jute, manufactured	3638

During the post war period, it is expected that the country may have increased imports of producer's goods e.g., machinery, etc., from the United Kingdom and the U S A, and may be able to develop industrial production. But she cannot hope to find markets in these countries for her manufactured articles. These countries shall of course require our raw materials, such as mica and manganese, and England may continue to take some of our cotton, too but we will have to find out export markets nearer home in the less industrially advanced countries of Asia, etc., etc.

◊Owing to war, trade with Germany, Italy and Japan has been stopped

## QUESTIONS

1. Define a market and distinguish between a local market and a world market. Give illustrations.
  2. Carefully assign, after giving reasons, the extent of market (local, provincial, national, or world) to the following commodities produced in India :—  
mangoes, articles of furniture, sarees, bricks, and tea.
  3. 'A single competitive price is both the characteristic and the test of an economic market'. Explain this statement, and discuss the causes responsible for the extension of markets.
  4. What are the causes that influence the extent of the market for a commodity? Discuss the qualities that a commodity should possess in order to have a wide market.
  5. What are the special features of the foreign trade of India? Why have imports declined during the present war?
  6. Give an approximate idea of India's chief imports and exports. What important changes have you marked in them during recent years?
-

## CHAPTER 3.

### DEMAND AND<sup>1</sup> SUPPLY

#### **Demand.**—

By demand economists mean not the mere desire to possess a thing, but an effective desire, that is, desire to possess a thing coupled with the means of purchasing it and the willingness to use those means for the purpose. Demand thus implies three things :

- (1) Desire to have the thing,
- (2) Means to purchase it,
- (3) Willingness to use those means for purchasing it.

Thus the demand of a street boy who has no money in his pocket for a thing in a shop is not demand, because he has not the means to purchase it. Nor is the demand of a rich man who has no will to spend money a demand, because though he has the desire and the means to purchase the thing, he has not the will to use those means for purchasing it.

#### **Demand depends upon price —**

How much of a thing is required depends on the price that has to be paid for it. If the price is high, the demand is small. If the price is low the demand is large. Demand, therefore depends upon price. When we say that demand for mangoes has increased, we mean that more mangoes are demanded at the present price in the market. We do not mean

that even at Rs. 5/- or Rs. 10/- a mango, the demand will be large. Thus demand differs from desire which has no reference to price. Demand always means demand at a price; and the demand at one price is different from the demand at another price.

### Law of Demand.—

From a study of this relationship between Demand and Price, economists have laid down the following *Law of Demand*.

**“At any given time and under given conditions, the amount demanded increases with a fall in price and diminishes with a rise in price.” MARSHALL**

Demand and price are, indeed, like the two ends of a see-saw, when one end goes down the other one goes up; and *vice versa*.

*Note*:—Evidently this law is derived from the Law of Diminishing Utility. As the utility of a commodity diminishes as the consumption goes on, we are induced to buy a certain thing in a larger quantity only when its price is reduced.

### Demand Schedule.—

It is a statement or table or list showing how much of a commodity will be purchased by a person, by a class of persons, or by all the people in a market, at different prices. For example, if at a price of Rs. 7,000/- per car 600 cars would be demanded

”	”	”	”	6,000/-	”	”	800	”	”
”	”	”	”	5,000/-	”	”	1,000	”	”
”	”	”	”	4,000/-	”	”	1,500	”	”
”	”	”	”	3,000/-	”	”	2,000	”	”

then this list or schedule of different demands



## at different prices will be known as the Demand Schedule

### Explanatory notes :

(1) *The demand schedule may be of an individual or of a market, but generally it is of a market. We get the market demand by adding together the demands of all the individual buyers in the market at each different price. Let us take the case of oranges :*

Price per dozen	A's demand in dozens	B's demand in dozens	C's demand in dozens
16 as.	2	1	0
12 "	3	2	0
10 "	5	4	1
8 "	8	6	3
6 "	12	9	5
4 "	15	13	8

These are three individual schedules of A, B and C, A being a rich man, B a middle-class man, and C a poor man.

Now suppose in a market there are a hundred such rich men as A, two hundred and fifty such middle-class men as B, and four hundred such poor men as C, then the demand schedule of the whole market will be formed as follows:—

Price per dozen	A's demand in dozens	Demand of 100 such men	B's demand in dozens	Demand of 250 such men	C's demand in dozens	Demand of 400 such men	Demand of the entire market
16 as.	2	200	1	250	0	0	450
12 "	3	300	2	500	0	0	800
10 "	5	500	4	1,000	1	400	1,900
8 "	8	800	6	1,500	3	1,200	3,500
6 "	12	1,200	9	2,250	5	2,000	5,450
4 "	15	1,500	13	3,250	8	3,250	7,950

(2) *The demand schedule holds good for a certain period of time—rather, an instant of time, for conditions of demand are always changing. It relates also to a particular place, for market conditions also vary. Thus in the above schedule, we*

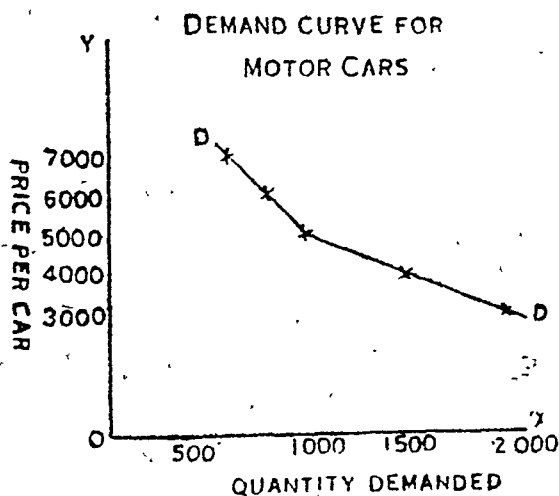
must take care to mention the time and the market—say, we might say that the schedule is for 8th July 1937, and for the Bombay market.

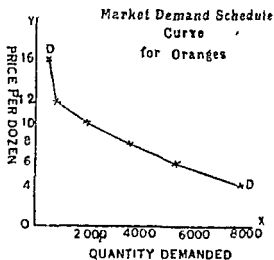
(3) The Demand schedule does not show what the price actually is, what quantity actually is bought. *It is only a hypothetical schedule*, based on the presumption of those who are familiar with the market conditions and who are thus able to state with some degree of accuracy about what quantity would be wanted in case any one of these prices should prevail.

(4) It is very difficult to frame accurate schedules, but these schedules help the manufacturers very much in fixing the prices of commodities. They are of great use in Economics because they enable us to know the changes in the demand for a commodity with every change in the price of the commodity, and show to us the degree of elasticity of demand for a particular commodity to a particular person or group of persons. They help us in understanding the law of demand, in measuring the consumer's surplus, etc., etc.

### Demand Curve.—

A graphic representation of the demand schedule is known as a Demand Curve, e.g., the following diagrams





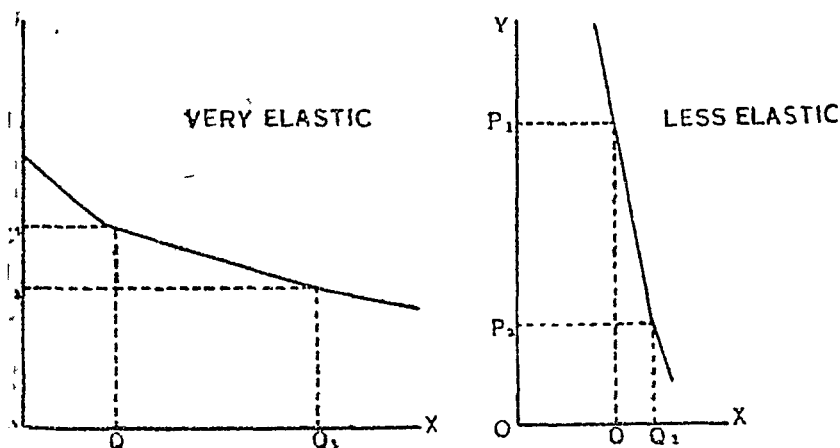
show the demand curves for the two market demand schedules, one of motor cars and the other of oranges, referred to in the preceding paragraph

### **Elasticity of Demand —**

The law of demand tells us that demand expands with a fall in price, and contracts with a rise in price. This tendency of demand to expand or contract with changes in price is called "Elasticity of Demand". In other words, elasticity of demand means the degree of change in the quantity demanded in response to a change in price.

*If with a slight rise or fall in price the demand for a commodity decreases or increases very much, the demand for the commodity is said to be elastic* e.g., in the case of luxuries and comforts, rich dresses, books on fiction, etc., etc. Whenever there is a rise in price the demand for these things falls very much, and whenever there is a fall in price the demand for them rises very much.

*If with a slight rise or fall in price the demand for a commodity diminishes or increases **very little**, the demand is said to be less elastic or inelastic, e.g., in the case of necessities like salt and matches. Whenever there is a rise or fall in the price of these things the demand falls or increases, no doubt, but the rise or fall is not very great.*

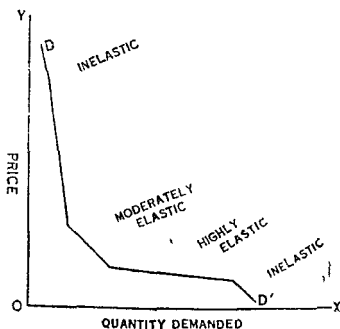


It is not easy to decide, in all cases, whether the demand for an article is elastic or not. *The elasticity of demand is different for different kinds of commodities and even for the same commodity it is different for different classes of a community, e.g., the demand for houses is less elastic than the demand for motor cars, and the demand for motor cars is inelastic for the poor though elastic for the rich. Again, the same article may be elastic in demand for a certain range of prices and inelastic for other ranges of prices, e.g., the demand for sugar may be elastic between 6 ans. a seer and 4 ans. a seer, but it will be almost inelastic between 2 ans. and 1 an. a seer. However, some general rules*

have been framed about the causes on which variations in elasticity depend.

They are —

(1) *Generally speaking, demand for comforts and luxuries is elastic, while the demand for necessities is more or less inelastic* Some writers go into further detail and say that demand for comforts is highly elastic (when the price of comforts falls a little, we immediately decide to buy a larger amount), demand for cheap luxuries is moderately elastic (e.g., in the case of gold watches, Parker pens, etc), demand for absolute necessities (e.g., wheat, coal, etc) and costly luxuries (e.g., rare wines, diamond rings, Rolls Royce cars, etc), is inelastic



THE FOUR CURVES INDICATE DIFFERENT DEGREES OF ELASTICITY

(2) Elasticity differs not only according to the nature of goods, but also with different prices. *Elasticity of demand is small at very high and very low prices ; it is great at medium prices.* If the price of a commodity is very high, an ordinary rise or fall in price will not affect the demand for it because then it is bought by the rich alone who will buy it at any price. If the price is very low everyone who wishes to buy can buy, and an additional fall in price does not make any difference in the amount demanded. But at medium price, it is consumed by the middle-class people, so that if the price rises a little, the latter will give up its consumption and the demand will shrink, while if the price falls a little, lower middle-class people, and even the poor, will begin to consume it and the demand will rise.

However, if we consider the demand of a class of people only we find that *"the elasticity of demand is great for high prices and great, or at least considerable, for medium prices but it declines as the price falls, and gradually fades away if the fall goes so far that satiety level is reached."* MARSHALL. This means that when prices are high, a fall in price produces a considerable increase in demand, e.g., mangoes in the beginning of the season; and when prices are medium, neither very high nor very low, the elasticity of demand is only a little less than in the first case; while if the prices have fallen very low so that everybody can buy the commodity, the demand shows no elasticity. e.g., when mangoes sell at -/1/- per 100, the demand

shows no elasticity—whether the price is 5 pice or 3 pice per 100 there is hardly any fall or rise in demand, and the buyer will buy as many as he requires, without thinking of the price

*Note :* The level at which 'very high' and 'high' prices begin is, of course, different for different classes, and the same is the case with the 'low' and 'very low' price levels

(3) *Demand for commodities which constitute a habit is less elastic, and stronger the habit, the smaller the elasticity, e g ,* a man who has become used to writing on fine paper will continue to demand it irrespective of a rise in its price. Similar is the case with the demand for opium by an opium-eater.

(4) *Demand for commodities that have a great variety of uses is elastic*, because with a rise in prices some of the uses are given up, while with a fall in prices there is a large expansion in the amount demanded for some particular use, e g., water, which may be used for drinking, cooking, bathing, medicine, industry, washing, irrigation, etc, or coal, which may be used in blast furnaces, railways, ships, gas works, electricity works, factories, homes, and so on. When water becomes dear, it may be used simply for drinking and cooking, and other uses may be given up. Similarly when coal becomes dear, it may be used only for some purposes, and other uses may be given up.

(5) *Demand for commodities which have got adequate substitutes is elastic* because with a rise in price some of the substitutes would be brought into use, e g., when electricity becomes dear, people go in for petroleum and kerosene oil, when electric fans

are costly, ordinary fans are used ; and when the bus fare is lowered, tram fare remaining the same as before, more people, who used to go by trams, go by buses because of the cheaper rate. Similar is the case with tea and coffee, sugar and *gur*, *ghee* and oil, wheat and *bejhar*, etc., etc. Elasticity of demand depends very much on the possibilities of substitution.

(6) *The demand for things like rare wines and luxuries is elastic but the changes in the price of these things do not affect the poor.*

(7) *Demand of persons of large incomes is less elastic than that of persons in poor circumstances, and elasticity of demand is increased by an equal distribution of wealth, while an unequal distribution leads to inelasticity in demand.*

#### **Importance of Elasticity.—**

The study of elasticity is very important from several points of view. In the first place it enables manufacturers and monopolists to decide whether to sell at high prices or at low prices, e.g., if at high prices, demand should greatly shrink, they should not raise the prices and enlarge the use of substitutes ; while if the demand for a commodity is inelastic they would find it in their interest to raise the prices. In the second place, it is important for the finance minister in imposing fresh taxes—the effect of the tax is to increase the price of the article, and if there is considerable addition to price demand may greatly contract and hence the revenue even after increased tax may be less



than what it was before the tax. This is why the Government of India is so eager always to raise the rate of tax on salt and not on comforts of life, like postage stamps railway rates, etc. When the rate of post cards was raised from two to three pice a few years ago, the income of the Government did not rise very much as many people gave up using postcards.

### 9. Supply.—

Just as demand is always at a price, supply is also at a price ; and just as there is a difference between desire and demand, so there is a difference between stock and supply. The stock is the entire quantity of goods that could be sold, the supply is the quantity that would be sold at a given price. Just as desire when it becomes effective becomes demand, so stock when it is actually offered in the market for sale at a price becomes supply. *There is no such thing as supply apart from price.* A shopkeeper may have a stock of 1,000 hats in his shop but if he is willing to sell only 100 at the present price

---

### Measurement of Elasticity :

There are usually two ways in which elasticity is measured. The method adopted by Taussig, Marshall and Chapman is to calculate the amount spent by the community over a commodity the elasticity of demand for which is to be measured. A given price is at first taken and the quantity bought at that price is stated. Next, changes in price are recorded along with the corresponding demand. Quantities bought at different prices are then multiplied by their respective price, and the products are compared. When the product is the same as before, i.e., the community spends the same sum even at a slightly higher price the demand is said to be unity. When the product is

of Rs. 2/- each the supply at Rs. 2/- will be said to be 100.

### Law of Supply.—

“As the price rises, other things remaining the same, the quantity offered for sale (supply) will tend to increase, and as the price falls, the quantity offered for sale (supply) will tend to decrease.”

Simply stated, the law says that **supply increases as price rises, and diminishes as price falls.** Supply and price move together.

### Supply Schedule.—

A supply schedule, like the demand schedule,

greater (i.e., when the community spends more on the whole than before), elasticity is said to be greater than unity. And when the product is less than before (i.e., when the community spends less than before), elasticity is said to be less than unity.

Consider the following example :—

Commodity			
A			
Price	things sold	Amount spent	Elasticity
Rs. 3	200	Rs. 600/- }	unity
„ 2	300	„ 600/- }	
B			
„ 3	200	600/- }	greater than unity
„ 2	500	1,000/- }	
C			
„ 3	200	600/- }	less than unity
„ 2	250	500/- }	
( less elastic )			

Another method followed by FLUX and others is that of finding out the percentage of change on the side of price and on the side of demand and then comparing them :

$$\text{Elasticity of demand} = \frac{\text{Percentage change in quantity bought}}{\text{Percentage change in price}}$$

is a list of the different amounts of a commodity that will be supplied at different prices, e.g.,

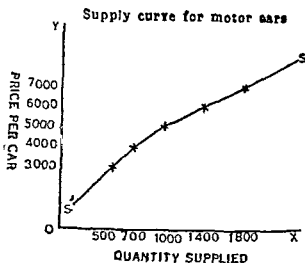
at a price of Rs. 7,000/- per car producers will sell 1,800 cars

„	6,000/-	„	1,400 „
„	5,000/-	„	1,000 „
„	4,000/-	„	700 „
„	3,000/-	„	500 „

Like demand schedule, supply schedules also always relate to a particular time and place. They are also hypothetical and imaginary, for no one can be absolutely certain of the commodities that would be offered at different prices. However, for the purpose of understanding or discovering the economic law of prices, supply schedules are also a useful aid.

### Supply Curves —

It is a graphic representation of the supply schedule. See the diagram below :



### Elasticity of Supply.—

“The term elasticity and inelasticity applied to demand are applicable also to supply. The supply of an article may be termed elastic when it leads to change readily with movements in the price of those articles, and may be termed inelastic when changes in price have little effect on the amount offered.” E. THOMAS.

Manufactured articles may thus be said to have greater elasticity because with rising prices supply may be made to increase. But in a very short period, when supply has no time to adjust itself to the demand, the elasticity is limited. In the case of agricultural produce, when supply cannot be increased before the next harvest, the elasticity of supply is restricted.

### QUESTIONS

1. Define ‘Demand and Supply’; ‘Demand schedule and Supply Schedule’; ‘Demand Curve’ and ‘Supply Curve.’ Give examples. Of what use are these schedules and curves in the study of Economics?

2. Enunciate the law of demand, and point out three of the peculiarities of demand.

3. What is meant by elasticity of demand? Why is the demand for some commodities more elastic than for others? Explain fully. Draw curves to illustrate elastic demand.

4. Explain the following, and draw curves to explain your answer :—

“The elasticity of demand is great for high prices, and great, or at least considerable, for medium prices; but it declines as the price falls and gradually fades away if the fall goes so far that satiety level is reached.”

---

# CHAPTER 4.

## BALANCING OF DEMAND AND SUPPLY

### or

### HOW VALUE IS DETERMINED ?

[ Value is of two kinds—value in use or utility ( i e , power to satisfy a want ), and value in exchange ( i e , power in exchange, or price ). Coal has a large value-in use, but little value-in-exchange. Gold has great value in exchange, though not so great value in use. All desirable goods have *value in use*. Even free goods like air, water, heat and light have value in use. But economic goods ( or wealth ) alone have *value in exchange* ~

When we use the word 'value' simply, we mean value in exchange. It is inevitably relative, since the value of one thing must always be expressed in terms of another. For example, the value of *X* in terms of *Y* is the amount of *Y* which can be obtained in exchange for *X*. If 1 lb. of tea exchanges for 4 lbs. of sugar, the value of 1 lb. of tea in terms of pounds of sugar is four, or to say the same thing in other words, the value of 1 lb. of sugar in terms of lbs. of tea is a quarter. The value is the ratio or rate at which tea and sugar exchange against each other.

In practical life, however, value is nearly always expressed in money—so many rupees, etc., and is then termed *price*.]

### Balancing of Demand and Supply —

or

### (How value, or price, is determined)

There are always two parties to a bargain, the buyer and the seller. The buyer tries to pay as low a price as he can ; the seller tries to charge as high a price as he can. In any case, the buyer

will not be willing to buy for more than is the utility of the commodity to him; and the seller will not be willing to sell for anything less than the cost of production of the commodity to him. Suppose B is the buyer and S is the seller of a commodity C. Suppose also that the utility of C to B is equal to 4 pice while the cost of production of C to S is 2 pice. Now B will in no case pay more than 4 pice—it is his maximum. And S will in no case accept less than 2 pice—it is his minimum. What will be the price? Evidently, the price will be somewhere between 2 pice and 4 pice, and will depend upon the higgling and bargaining between B and S. Say, it is 3 pice.

Now suppose there are two buyers B and B', though there is only one seller S and only one commodity C. The utility to B is 4 pice, but the utility to B' is 5 pice. Naturally B and B' will compete among themselves for the purchase of C; and the price may be forced up to say,  $4\frac{1}{2}$  pice. B will not be able to pay so much as the utility of the commodity to him is only 4 pice, and so B' will have the commodity.

Next suppose that B is the only buyer but there are two sellers S and S'. The cost of production of S is 2 pice but of S' only 1 pice. There will be competition between S and S' and the price may be forced down to say,  $1\frac{1}{2}$  pice. S will not be able to sell his commodity because his cost of production is more than  $1\frac{1}{2}$  pice; and S' will sell the commodity.

But for the good luck of the poor buyers and for the good luck of the sellers with a high cost of production, there are many sellers and many buyers in the market, and a *double-sided competition between buyers and sellers is always going on*. As a result of this competition between the two groups, a price is fixed in the market at which most of the buyers get the articles and most of the sellers are able to sell the articles—only those who have too high a cost of production go without making a sale, or those who are too poor to buy at that price. And this process of arriving at a price in a local market is known as the balancing of supply and demand.

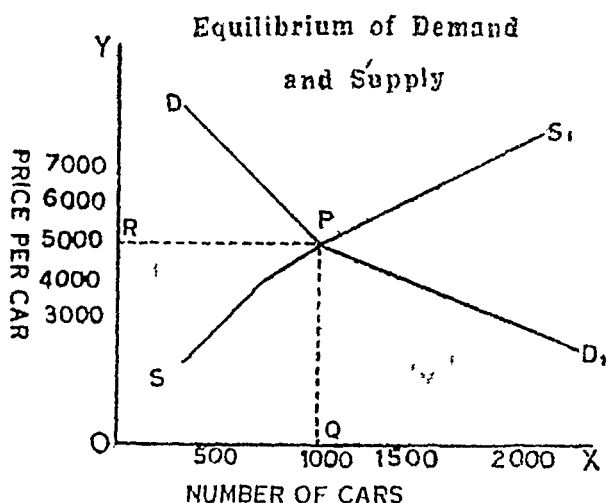
Suppose the following schedules represent the market for motor cars on a particular day :

Price per car	Buyers willing to buy	Sellers willing to sell
Rs 7,000/-	600 cars	1,800 cars
" 6,000/-	800 "	1,400 "
" 5,000/-	1,000 "	1,000 "
" 4,000/-	1,500 "	700 "
" 3,000/-	2 000 "	500 "

Then the price of the car will be tossed hither and thither like a shuttlecock and will be finally fixed at Rs 5,000/- per car, at which point the quantities demanded and the quantities offered are equal. And if the price for a time goes above this point, it will have the tendency to come down to this, while if for a time it goes below this point, it will have the tendency to come up to this point. [ Suppose the price is Rs 6,000/-. Then at this price 1400 cars would be offered while only 800 would be bought. Some of those who produce

at the lowest cost, in order to sell more of cars, would accept less, say Rs. 4000/-. The change in price would lower the supply to 700, but raise the demand to 1500. Now, as the demand is greater than the supply, the sellers would demand a higher price, and would raise it to Rs. 5,000/-. At this price it is possible that 1,000 cars would be offered and 1,000 cars would be bought. ]

Thus we conclude that in any market and at any time the price will be so adjusted through the competition of buyers and sellers, that the quantity demanded is equal to the quantity offered at that price ; and that if at any time the price is above or below this equilibrium point, the tendency of the market will be to return to this point—price cannot be above or below it for a very long time.



In the diagram above  $DD'$  represents the demand curve and  $SS'$  the supply curve for motor cars. These two meet at P, and  $PQ$  represents the equilibrium price, while  $RP$  represents the equilibrium demand and equilibrium supply.



We are now in a position to sum up the theory of value or price. Price in the market is determined by competition among buyers and sellers. Buyers look to the utility of the commodity to them, sellers look to the cost of production of the commodity to them\* The utility to the buyers

---

### \*Marginal Utility and Marginal Cost of Production

It has been said above that price is determined on the one side by the utility of the commodity to the buyer and on the other by the cost of production of the commodity to the seller. But in a market there is not only one buyer but many and there is not only one seller but many there is not only one commodity but many. Some buyers are willing to buy at a high price some only at a low price. Some sellers cost of production is high, others cost of production is low. Some buyers buy only one commodity and some more. Some sellers produce only one commodity and some more. Whose utility and whose cost of production will determine the price in the market?

The answer to this question is that market price will be fixed by the marginal utility of the marginal buyer on the one side and the marginal cost of production of the marginal seller on the other.

As we know already the buyer will try to pay as little as possible and will not pay more than the marginal utility of the commodity to him. For example the utility of a thing to the buyer is as follows—

1st	unit of the commodity	4	pice
2nd	,	3	,
3rd	,	2	"

How many will he buy? If the price is 4 pice he will buy only 1 if 3 pice, two, if 2 pice three, and so on. (We pay for a commodity according to marginal utility)

Similarly the seller will like to have as much as possible and will not accept less than the marginal cost of production of

fixes the upper limit, and the cost of production

---

the commodity to him. For example,

the cost of production of the 1st unit to him is 2 pice

“ “ “ 2nd “ 3 “

“ “ “ 3rd “ 4 “

How many will he produce? If the price is 2 pice, he will produce only one; if 3 pice, two; if 4 pice, three; and so on. (We charge for a commodity according to marginal cost of production):

So the buyer will pay according to the marginal utility of the commodity to him, i.e., the utility of the last or the least useful unit he purchases, while the seller will charge according to the marginal cost of production of the commodity to him, i.e., the cost of production of the worst or the costliest unit.

Now there are many buyers and many sellers. Competition will go on among these buyers and sellers. For example,  
 1,000 people are willing to have *gobhis* at 4 pice each  
 4,000 “ “ “ “ 3 “ “  
 10,000 “ “ “ “ 2 “ “

Suppose the supply is of 15,000 *gobhis*, what will be the price? Two pice, because if the price is 4 pice, only 1,000 will be sold; if it is 3 pice, only (1,000+4,000) will be sold; but if it is 2 pice or less, all will be sold. Who are the *marginal buyers*? The 10,000 willing to buy at 2 pice. And it is they who determine the price.

Next suppose that, the cost of production being different in each case,

1,000 people are willing to sell *gobhis* at 4 pice  
 4,000 “ “ “ “ 3 “ “  
 10,000 “ “ “ “ 2 “ “

And suppose the demand is for 15,000 *gobhis*, what will be the price? Four pice, because if the price is 3 pice 1,000 people will not sell, and if the price is 2 pice 1,000+4,000 people will not sell and will go out of the market. Who are the *marginal sellers*? Those whose cost of production is 4 pice.

to the sellers fixes the lower limit, and then there is a sort of see-saw of values.

Mutual competition among buyers (greater demand) tends to force prices up, and that prompts greater and greater supply. Similarly, mutual competition among sellers (greater supply) tends to force prices down, and brings them nearer and nearer to the

Thus we come to the conclusion that price is determined by the marginal buyer on the one side and the marginal seller on the other. The marginal buyer pays according to the marginal utility of the commodity to him, and the marginal seller sells according to the marginal cost of production of the commodity to him. Taken together, market value is fixed at a point where the least price which the seller will take rather than go without selling the commodity meets the highest price which the buyer is prepared to give rather than go without the commodity. In other words, where the marginal utility of the marginal buyer is equal to the marginal cost of production of the marginal seller.

Now in the illustration of motor cars taken above, why will not more than 1,000 cars be bought at 5,000/-? Because the utility of the cars to those who do not buy is less than 5,000/-. Many of those who bought the cars would have given higher prices, if necessary, but the persons who were just induced to buy (i.e., marginal buyers) may be assumed to have been willing to give Rs. 5,000/- and no more. Why should any other buyer pay more in that case?

Why would not more than 1,000 cars be sold at Rs. 5,000/-? Because under existing conditions of supply all cars in excess of 1,000 would have had to be supplied by manufacturers whose cost of production per car was greater than 5,000. Many of those who sold the cars at 5,000 would have charged somewhat lower price, but we may assume that to those who were just induced to sell (i.e., to marginal sellers), the cars cost 5,000/- each. Why should any other seller charge less in that case?

level of the cost of production. In other words, price and the two forces of demand and supply act and react upon one another. *If price rises, demand diminishes ( law of demand ), but if demand diminishes price falls. When price falls, demand increases, but when demand increases, price rises. Similarly, if price rises, supply increases ( law of supply ); but if supply increases, price falls. When price falls, supply decreases, but when supply decreases, price rises.* These changes always go on in a market till a point is reached where the demand and supply are in equilibrium, i. e., the amount demanded at the price is also the amount supplied at that price. This price at which the demand and supply equate or balance is called the *market price* or *equilibrium price*; and this is the price at which goods change hands at any given time and place.

Here we must carefully note that *neither demand alone nor supply alone can determine price*. Water and air have great utility and are always in demand, but because they have no cost of production, they have no price. Similarly, mere cost of production cannot determine value, for no-body will pay anything for an article which nobody wants, although any amount of labour may have been expended in making it. A machine is made at a cost of Rs. 1,000/- but it does not do any other work except making a noise, will anybody pay any price for it? Similarly a book, which is absolutely useless, is printed at great cost by the author; will anybody pay any price for it? And, again, will anybody give a commodity free,

simply because he did not spend anything over it but got it as a gift from somebody ? The answer is 'no', and we conclude that neither utility alone, nor the cost of production alone, can give value to a commodity. Just as we cannot say that the upper blade or the lower blade alone of a pair of scissors cuts a piece of cloth when the two blades operate together, so we cannot say whether demand alone or supply alone determines value, and just as there can be no cutting until the two blades meet, so there can be no value until supply meets demand—the point at which they meet in order to cut, i.e., the equilibrium point is the point at which market value is fixed.

One question however, still arises. Granting that value is the work of both supply and demand operating jointly, which of the two has greater influence on the market price—demand or supply, utility or the cost of production ?

The answer to this question is that when a thing already made has to be sold, the prices which people will be willing to pay for it will be governed by their desire to have it, i.e., by their demand for the commodity. Take the case of a commodity on a particular day, in a particular month, or during any short period. Here the stock to be sold is practically fixed. If on that day, in that month, or during that short period, demand for that commodity increases then the price will rise, and if the demand falls the price will also fall, the cost of production will have little influence e.g., in the

case of perishable articles, like fresh vegetables or fish, the stock of which is fixed for the time and the sellers of which are compelled to dispose of it within a short time, demand will have a great influence on price, i.e., a sudden increase in demand will raise the price considerably whereas an unexpected decrease in demand will result in a very considerable fall in price. Of course, there may be no such great rise or fall in the case of an article which can be kept for a long period, but even here it must be remembered that business people cannot afford to keep their capital locked up in goods which sell but slowly; they must buy other goods and to do this they need capital. So they have to sell their goods, too..

The case will, however, be altogether different in the long run. The market price will then fluctuate according to the cost of production. If the demand happens to be great, the price will no doubt rise for a time above this, but this rise will not continue long. As a result of high prices, production will increase no doubt, but there will be competition among the producers, and the market price will fall to the level of the cost of production. Similarly, if the demand falls for a time, price will fall below the cost of production, but this cannot continue long. As a result of low prices, production will fall off—because no one will like to produce for a loss—, and this reduction in supply will in the long run raise the market price. This is why it is said that '*Value tends towards the cost of production in the long run*'.

To take an example, suppose there is an increase in the demand for hats. At first the price of hats will rise. That would mean larger profits for hat makers. The hat industry will be encouraged and enlarged. More hats will be produced. Improvements and adjustments will be made in the hat industry, so that the expenses of production would fall to the minimum. And these expenses of production per hat will probably be lower than before, because hats will be produced on a large scale. To prompt greater demand for hats, hat makers will reduce their prices so that they might be able to dispose of all the hats they make. This tendency would go on operating till the hats sell at their cost of production price.

The conclusion is that *the shorter the period\* which we are considering the greater is the influence of demand (utility) on value, and the longer the period the more important will be the influence of supply (cost of production) on value*

---

\*Short period and long period markets —

The period of time necessary to adjust the supply to the changed demand is called the long period. Any shorter period is called a short period. For example, there is an increase in the demand for lemons, and more trees are planted. If they begin to give lemons in a year and thus add to the supply up the market, a year will be the long period and less than a year the short period. Similarly a big increase in the demand for rubber may lead to a very large rise in its price, and the price may remain very high for several years until the new trees planted in response to the increased demand begin to yield.

The idea of these will be clear from the following division of markets according to time by MARSHALL —

## Market price and Normal Price.

Market price is the price ruling in the market at any moment, and represents the equilibrium point between demand and supply at a particular time. This price may of course vary from day to day according to changes in demand and supply. At one time demand may be low because of the absence or inactivity of the purchasers; at another time supply may be in excess of demand because of the arrival of plentiful supplies from outside. Under such conditions the market price will fall by reason of the competition of sellers. Conversely, it will rise if

(i) *Very short period market* (viz., a day or a week). Here supply is more or less fixed, and value is determined by the influence of demand alone. It may be in excess of, or less than, the cost of production, according as demand is greater or smaller in relation to the supply. The price of fish, for example, in one day will be determined by the stock of fish already on the market, and the demand for fish. If on any day the demand for fish increases, the price will rise immediately because it would be difficult to increase the stock of fish. If on any day the demand falls, the price will fall, too, immediately.

(ii) *Short period market* (viz., a few months or a year). Here supply would adjust itself to the demand, but would do so only imperfectly, as supply cannot be adjusted all at once. The appliances of production—the machines, the specialised labour, etc., have to be increased or decreased, and this requires time. Thus in a short period market an increased demand would be met by overworking the existing appliances of production, while a decreased demand would not do away with the existing appliances all of a sudden, and production would continue still, though on a smaller scale. Increased demand for fish would raise the prices and encourage the fishermen to place a greater amount on the market by using the existing boats and nets to



demand is in excess of supply at any particular time. For example, the market value of fish on a day may be greatly increased, if there be a great demand for fish on account of a festival that day, or may be greatly reduced, if there is some illness in the town and people decide to give up taking fish. Similarly, the market value of ghee may rise during marriage season and the market value of rain coats during rainy season, for though the market prices of goods of a less perishable nature than fish may not fluctuate so markedly, yet even in such cases there may be appreciable seasonal price variations. Market prices are very much like an temperature which the full, and the price will show a falling tendency. Value would still be influenced by demand, though the influence of supply would slowly and gradually assert itself.

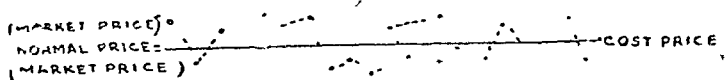
(iii) *Long period market* (viz, several years) Here supply would adjust itself fully to the demand. If more than the cost of production is obtained the appliances would be increased, the supply would be increased, and the demand price would be lowered so as to conform to the cost of production. If less, some of the appliances would be taken over to other industries, supply would be reduced, and the demand price would come up to the supply price. For example, newer boats will be built, more nets will be made, and the fishermen would try to increase their catch in every way possible. And the price would fall until it becomes equal to the cost of production.

(iv) *Very long period market* (or secular movements of value extending over 50 or 60 years, say) Here the supply will refer to the output that will be produced with the adoption of new inventions and new improvements, greater accumulation of capital, growth of population, spread of education, etc, etc. For example more and more persons will be trained up as fishermen, great improvements will be introduced in the fishing industry, and the price will be equal to the new cost of production.

varies from time to time—it changes with the weather, it is affected by every cloud, by a gust of wind, or by rain.

Normal price is the price which prevails in the long run. In other words, it is the price that prevails in the long period, and we have already seen that in the long period the price of a commodity tends to be equal to the cost of producing it. It is also determined by the forces of demand and supply; but here we consider the demand and supply over a period sufficiently long for fresh goods to be brought forward in response to an increasing demand. We consider the equilibrium of normal demand and supply, in stead of the temporary equilibrium that we considered in the case of market price.

Market price may or may not be equal to the normal price. Very often it is different from normal price. But it has a general tendency to become equal to the latter. Normal price is like the central position of the pendulum. The pendulum seldom stays at the central position. It moves to and fro. But wherever it goes, it has always a tendency to come back to the central position of rest. Similarly, the market price fluctuates above and below the normal price, but it has always a tendency to come back to the normal price. *Normal price is the centre about which market price oscillates.*



Let us take an example. Suppose the market price is higher than the normal price for some time.

It is natural that unusual profits will begin to appear and production will increase. The consequence will be that the market price will tend to fall. This movement will stop only when the market price comes close to the normal price and unusual profits cease to occur. Similarly, if the market price is for some time below the normal price, unusual losses will begin to appear production will shrink, and the market price will tend to rise till it comes close to the normal price and unusual losses cease [*Read the example of hats in the preceding paragraph*]

### **Changes in the expenses of production and Price**

We have now seen that, in the long period price tends to be equal to the cost of production. But the costs of production or the expenses of production are always changing. Some commodities are subject to the law of diminishing returns, and if there is a permanent increase in the demand for them, they will only be produced at higher cost per unit, and naturally their prices will go up. Other commodities enjoy the operation of the law of increasing returns and, if there is a permanent increase in the demand for these, they will be produced at lower cost, and their prices must fall. For example, in the case of hats in the illustration discussed in the preceding paragraphs, it will be noticed that the prices fell down—the industry began to enjoy increasing returns. Prices ultimately would go up instead of falling if there were an increased demand for the products of agriculture, for in agriculture the law of decreasing returns operates in the long run and the expenses

of production rise. Indeed, it is only when an industry is under the operation of the law of constant returns that the cost will remain the same for an increase or fall in the demand and supply.

---

### Some Special Problems of Value.

#### Joint demand :

Certain things are wanted together. For example, when we want a penholder we also want a pen, when we want a watch, we also want a chain or a wrist-strap, when we want a safety razor, we also want blades and a strop, and when we want to build a house, we want bricks, stones, mortar, timber, the services of masons, etc. The utility of one thing without the other would be very little. And there are some interesting problems connected with joint demand. For example, if the supply of one thing becomes scarce, forces are set in motion which bring about a rise in the price of the other or others also.

#### Joint supply :

There are certain goods which cannot be produced separately and are produced together in a single process. The cost of producing one of them is the same as the cost of producing all of them. For example, by churning milk we get butter and butter-milk; distillation of coal gives us coal gas, coal tar, coke and ammonium nitrate that is used as manure in gardening and agriculture; manufacture of petroleum gives us petrol, kerosin oil, vaseline, gasolene and naphtha; and similarly we have a joint supply of wheat and straw, cotton and cotton seed, oil and oil-cake, mutton and wool.

The price of joint products must together be enough to cover their joint expenses of production. And the apportionment of the total price between the two joint products depends upon the relative demand for them. It is very difficult to find out the costs of production separately in such cases.

### Composite demand

Land can be used for agriculture pasture, gardening, building etc., water can be used for purposes of drinking, bathing, washing, gardening, etc. milk can be used as curd, as *mava* as *rabri*, as food or drink, as medicine, etc. and similarly iron, wood, rubber, cotton, jute etc., can be put to many uses. Total demand for every one of them in all its uses, is called "Composite demand".

Composite demand is considered under "Alternative supply" by Marshall—both mean the same.

### Composite supply :

Tea, coffee and cocoa satisfy the same desire, e.g. of drinking, different vegetables selling in the market satisfy practically the same demand, and wood pulp, bamboo pulp, grass, rags and waste paper are all used for the manufacture of paper. The supplies in these cases are competitive supplies in relation to one another. The 'composite supply' of goods at any price is thus the sum of all rival commodities at the price, e.g. the composite supply of drink at a given price equals the supply of tea plus the supply of coffee plus the supply of cocoa at the same price.

Composite supply is considered under "Alternative demand" by Marshall.

### Indirect or Derived Demand :

The blade of a knife has no utility apart from the knife. The handle of a knife has also no utility apart from the knife. Thus when demand for knives increases, demand for blades and handles would also increase and when demand for knives decreases, demand for blades and handles would also fall. Demand for knives is said to be a direct demand, demand for blades and handles is said to be derived from the demand for knives. Similarly, the demand for bricks, lime, masons etc., is derived from the demand for a house, the demand for nibs and holders is derived from the demand for steel pens, etc., etc.

These are all, however, very complex problems in the determination of the theory of value and going into the minute

details of such problems does not seem to be within the scope of this book. A brief discussion has been given just to stimulate thought.

### Monopolies :

We have discussed in the foregoing pages how value is determined in a competitive market, that is, in a market where there is competition between buyers, between sellers, and between buyers and sellers both. But sometimes there is little competition in the market, and the commodity is produced under conditions of monopoly, that is to say, the producer enjoys a monopoly of production, and has the power to control price, while the consumers have little or no hand in its determination. In such cases value is determined on a different principle altogether.

[ Monopolies may be (1) *natural* monopolies, e. g., Bengal has a monopoly of jute production ; (2) *social* monopolies, e. g., gas, water and electric light companies, canals and railways ; (3) *legal* monopolies, e. g., patents and copyrights ; (4) *State* monopolies, e. g., the Government of India has a monopoly of the production of salt and opium ; (5) *capitalistic* or *voluntary* monopolies, e. g., the trusts and kartells in U. S. A., Germany and Great Britain, say, the Standard Oil Company of New York. They may also be classified as *public* monopolies, e. g., municipal water-works, or *private* monopolies, e. g., the combinations, trusts and kartells. And they may be either *complete* monopolies—such monopolies are rare, or *partial* monopolies i. e., when they are restricted in their operation to a particular area, so that any considerable rise in price generally stimulates its production elsewhere. ]

**Determination of monopoly value.**—The monopolist neither charges the highest price nor the lowest price, but such a price as earns for him the highest income. For example, an electric supply company finds that if electricity is sold at  $\text{₹} \frac{1}{8}$  a unit, 10,000 units are consumed and there is a gain of  $\text{₹} \frac{1}{4}$  per unit ; while if it is sold at  $\text{₹} \frac{1}{4}$  a unit, 50,000 units are consumed, and there is a gain of  $\text{₹} \frac{1}{2}$  per unit ; and if it is sold at  $\text{₹} \frac{3}{4}$  a

unit 80,000 units are consumed, and there is a gain of  $\text{Rs } \frac{1}{2}$  per unit.

Rate	Number of units demanded	Expenses per unit	Gain per unit	Total income
0 8-0	10,000	0 4-0	0 4-0	Rs 2,500
0 4-0	50,000	0 2-0	0 2 0	,, 6,250
0 3 0	80,000	0 2 0	0 1-0	,, 5,000

Thus the rate at which he gets the highest income (Rs 6,250) is  $\text{Rs } \frac{1}{4}$  a unit, and he will naturally like to fix this rate (When a thing is subject to increasing returns, he tries to produce more and charge a lower price—since at the price the monopoly profit is likely to be greater, when a thing is subject to constant returns even then he tries to produce more, but when a thing is subject to diminishing returns he tries to restrict the supply, since it is only then that he can make the largest monopoly profit )

However, it must be remembered that a monopolist has not always a free choice in fixing prices. *Firstly* he has to take into consideration the feelings of the public, i.e., public opinion. *Secondly*, he has to see that the price fixed is not so high as to lead to the introduction of substitutes, say, if electricity becomes very dear people will begin to use gas light, kerosin oil lamps etc. *Thirdly* he has to take care that the price is not so high that the Government may interfere or rival producers may find some way of stepping in. So on and so forth.

### Speculation

Speculation refers to that form of business enterprise which is undertaken in the expectation of a rise or fall in prices. Speculators purchase at a time when the supply is large and demand small, and sell at a time when supply is small and demand large. They keep in view the condition of the standing crops, the conditions of demand in the world, the prospects of the new crops, the happenings in other countries of the world, and so many other factors that are likely to have their effect on supply, demand, or price. They thus equalise price from year to year,

from season to season, from month to month, also as between different countries of the world. They spread supplies over periods of time in proportion to demand, they do away with violent fluctuations in prices, etc., etc., and thus they are of very great service to society. The only evil of speculation is that it has a tendency to degenerate into a blind speculation, and even gambling, that renders business feverish, and causes needless insecurity. And when it is rife, many people give up honest work and try to get rich quickly by lucky hits. This is a common sight in the speculative markets of wheat and seeds, cotton and shares, at Bombay and Calcutta. Sometimes they even combine together to have a control over the supply, so that they may be able to charge as high a price for a commodity or a share as possible; and this is called 'cornering' or "Khela". Many attempts have been made by governments of different countries to check the abuses of wild speculation or gambling; but they have not been successful.

### QUESTIONS

1. Define 'Value' and explain the difference between value and price. Explain the statement: "There can be no general rise in values and no general fall in values".

2. Define demand and supply, and explain how they help in the determination of the price of a commodity.

3. What do you mean by temporary equilibrium of demand and supply? How does it differ from normal equilibrium of demand and supply? Give examples to illustrate your answer.

4. "If price rises, demand diminishes, but if demand diminishes, price falls. It is difficult to see how price ever changes." Solve this difficulty.

5. Explain the following statements, so as to make their meaning clear :—

(a) The demand for a given commodity is governed by the marginal utility of that commodity.



---

(b) Value tends towards the cost of production in the long run

6. Distinguish between market price and normal price, and show how the former oscillates about the latter

7. 'The value of a commodity is normally about equal to the cost of production. Does this mean that it is the cost of production of a commodity which gives it its value, so that if there were no cost of production there would be no value? Explain how cost of production affects value.

8. "The value of a commodity cannot be permanently much above or below its cost of production. Explain why.

9. Determine the influence of the expenses of production on price. Under what conditions is it a dominant factor and why?

---

## CHAPTER 5

### From Barter to Money

We have seen in a previous chapter that exchange may be either by barter or by sale and purchase through money. The former method was in use in the early days, when the wants of men were very simple, the area of exchange was limited, and society was generally backward. But as wants of men multiplied, division of labour increased, society developed, and markets widened, difficulties were experienced in this method, and barter was replaced by money; till today we find that exchange is almost invariably carried out with the help of money.

#### Difficulties of Barter.—

(1) There must be a *double coincidence* in barter and this is not always possible. For example, a man has a horse and wants a carriage. He may never get a carriage unless he finds a man who is prepared to give him his carriage and at the same time is willing to accept his horse in return. If he comes across somebody who is willing to give his carriage not in return for the horse but in return for a bicycle, the bargain cannot be struck. Endless time might be spent in seeking a person who wants to sell a carriage and at the same time wants to buy a horse, and the chances are that he would have to give up the quest sometimes. A story is told of a traveller in Africa who wished to obtain a boat. The owner of the boat was ready to part with it but wanted ivory

in exchange. The traveller had no ivory. He found a man who had ivory and wanted cloth. He himself had no cloth. But he had wire, and he found yet another man who gave him cloth for his wire, so that he could then exchange the cloth for ivory. and finally exchange the ivory for the boat. Clearly, a great deal of time and energy have been spent here in bargaining, and trade under such conditions cannot but be restricted in scope. Besides, most exchanges in the modern world are not exchanges of commodities. How, for example, would wages be paid under barter?

(2) *Difficulty of a common measure of value.*

It is difficult to judge how much of one thing is to be exchanged for how much of another. For example, if one man has a horse and another a carriage, and both of them want to exchange, they cannot do so in the absence of a common measure of value. It is not necessary that the owner of the horse would regard it as exactly equal to the carriage in value, and if he thinks that his horse is more valuable, exchange would be impossible, because a portion of the horse would be of no use to the owner of the carriage. Exchange would have become much easier if the values of all commodities were expressed in terms of money. As one foot indicates a certain amount of length, as one pound indicates a certain amount of weight, a unit of money expresses a certain amount of value. It is the measuring rod for the exact measurement of each exchange ratio.

(3) *Difficulty of subdivision.* Certain things

cannot, by nature, be broken or divided, e. g., book, furniture, or diamond; and exchange becomes difficult when the values of commodities to be exchanged differ. For example, a shoemaker wants a loaf for his shoes, but the exchange value of a loaf is only a fraction of the value of the shoes while the shoes cannot be sub-divided without destroying their values. How can there be exchange?

[ These difficulties are removed by the use of money these days. ]

### **Functions of Money.—**

“Money’s a matter of functions four,

A medium, a measure, a standard and a store.”

The chief functions of money are :—

(i) *Money serves as a common medium of exchange.* It does away with the difficulty of double coincidence in barter, e. g., what I want the other man must possess, and he must want what I possess. It enables us to buy directly what we want for money, instead of the necessity to find a person who is willing to part with what we want in exchange for what we possess but do not want; and it enables us to sell our goods, too, in the same way. We sell our goods for money because we are sure that others will also accept money for goods, when we want to buy them. We exchange our services for money because we are confident that others will also sell their services for money when we require them. Thus money serves as a common medium of exchange, and makes the work of exchange easy.

(ii) *Money serves as a common measure of value.* Just as we measure the length of a piece of cloth by means of the yard, so we measure the value of commodities by the measuring rod of money. In its terms, the values of all other commodities are measured and compared; for "it is easier to ascertain and remember the relations of many things to one thing ( money ) than their innumerable cross relations with one another" *John Stuart Mill*. If, for example, we know that wheat sells at Rs. 4/- a md., sugar at Rs. 12/- a md., and copper at Rs. 24/- a md., we know that the value of copper is twice that of sugar and six times that of wheat. Every article bought or sold can now be valued in terms of money.

(iii) *Money serves as a standard for deferred payments.* This means that money can be used to pay off old debts, without much injustice or loss arising to the debtor or the creditor; because the value of money is more constant and stable than the value of commodities. (Loans are daily given and taken in the economic society of today, and their repayment is 'deferred' or delayed to a future date. In order that the borrower may return to the lender the same value which he had borrowed, it is necessary that the lendings and borrowings be carried on in terms of money whose value remains fairly stable. But this claim is not sustainable on closer study. Besides, this function of money cannot logically be separated from its function as a measure of value discussed already.)

(iv) *Money serves also as a store of value.* Many

commodities change in value, many others are perishable and cease to have any value after some time. But money is always in demand, and maintains its value ; so it is convenient to hoard money instead of commodities. Value can be stored best in the form of money. ( This function is also becoming less and less important these days owing to the substitution of deposit banking for hoarding and owing to the growth of investment habit. However, money serves as a reserve for bank credit itself—a proper reserve ensures solvency and enables us to use cheaper medium of exchange, such as bank notes and cheques. In any case, money is the most liquid of all assets).

#### **Definition of Money.—**

Some writers have defined money in a very narrow sense. They include only metallic money, and according to them paper money is not money. Other writers interpret it in a much wider sense. They include all media of exchange—metallic money, paper money, cheques, bills and drafts : “Money is that money does”.—*Walker*.

The more moderate and common view, however, is to include in money only those media of exchange which are generally acceptable in payment of goods, or in discharge of debts, which pass freely from hand to hand as media of exchange, and which are given or accepted in the final discharge of debts or in the final payment of dues (that is to say, without leaving any obligation which requires settlement afterwards). According to this view, cheques, bills, drafts and **Hundis** are not included in

money, and are known more precisely as "credit instruments" or "credit money", but both metallic money and currency notes are included.

*In the words of ELY, "money is anything that passes freely from hand to hand as a medium of exchange and is generally received in final discharge of debts."*

According to this definition, cheques, bills, hundis and drafts are not generally acceptable, and therefore, are not money. Currency notes are money, and the pice and the rupee are money, but sovereigns, which were money formerly, are not money today because they are not a part of currency but mere pieces of bullion changing hands at a price depending upon the price of gold.

Other definitions of money are —

*"Money is that intermediary commodity which is given and is accepted in discharge of obligations."*

*"Money is anything which is widely accepted in payment for goods or in discharge of other kinds of business obligations"*

### **Characteristics of Good Money :**

Different commodities have been used as money at different times in different parts of the world. The Mexicans used cocoa the Chinese used pressed cubes of tea, the ancient Greeks, Romans and the Teutons used cattle and sheep, the ancient Virginians used tobacco; the Africans and the Indians used cowries. In mediæval Europe, copper was the chief money commodity, iron was greatly used as money till recently in Burma, in many villages in India, grain is even now used as medium of exchange

for petty purchases. But, on account of their superior advantages, gold and silver have in course of time come to be regarded as most suitable to do the work of money, and other things have been dropped one by one.

To perform its functions satisfactorily, the commodity chosen as money should possess certain qualities :— *CUR DISH TA*

(1) *General acceptability*—Utility and value. Since money is to be exchanged for valuable goods, it should itself possess value and utility for other purposes than currency, so that it may be usually acceptable, e.g., gold and silver can be used as ornaments and are usually desired; while skins may or may not be generally acceptable.

(2) *Durability—Indestructibility*. As money is to be stored up for future use, the article which may be used as a medium of exchange should be comparatively imperishable, and should be such as to withstand the destructive influence of water, air, fire, etc. For example, wheat begins to rot and lose in value if it is kept over a number of years, and is not suitable, while metals are, e.g., gold coins last no less than 8000 years in which period they generally wear out.

(3) *Homogeneity—Uniformity*. All parts of the commodity should be of the same kind and quality, so that pieces of equal weight have equal values. The value should not vary from piece to piece. For example, the composition of the precious metals is uniform, and, as a result, the value is in exact proportion to weight and there is no necessity of a scrutiny and consequent waste of time at every transaction.



(4) *Cognizability*, or the quality of being easily recognised. The article selected as money should be easily known and recognised when seen. It should not be necessary to go to an expert to see if it is genuine. Metals can be easily recognised by the colour and the ring, while there may be different kinds or varieties of wheat say, and the inferior quality of wheat will not possess the same value as the superior one.

(5) *Divisibility*. The article must be capable of being divided into numerous smaller parts without loss of its value. A diamond, when cut into two, loses its value considerably, similarly shoes and cattle are by nature indivisible but a *tola* of gold, on the other hand loses nothing in value if it is divided up into two or more pieces.

(6) *Malleability, Impressionability, and Fusibility*. The commodity selected as money should be capable of being melted and put into the form of sheets (malleability). It should be such that it can easily take impressions (impressionability). And it should be such that if it is not needed as money, it may be melted and put to some other use (fusibility). Gold and silver are such that they can be easily turned into sheets or drawn into wires. They can also take impressions upon them. And they can be turned into ornaments which, in their turn can again be melted and turned into money without loss of value.

(7) *Portability*—*Large value in small bulk*. The material of money must be neither too heavy nor too light, so that it may be easily carried. Thus

iron, grain, or logs of wood, or oxen, are not suitable for being used as money. The precious metals have large value in small bulk, and can be easily transported from place to place, and so are suitable for use as money, but bricks are not such.

(8) *Stability in value.* This is especially important. The article selected as money should not fluctuate in value, so that it may be stored up without risk. There is comparatively greater stability in the value of gold and silver because new supplies of gold and silver obtained in a year are very small proportionately to the total supply already in existence. In the case of commodities whose supply varies from year to year we find that there are great variations in their value and they cannot satisfactorily perform the functions of a store of value, or serve as a standard for deferred payments.

Precious metals, i.e., gold and silver, have almost all these attributes and that is why they are used as money commodities by all the civilised nations of the world today. Nickel, brass, and copper are also used to make small coins. That is because a small coin, say a two anna piece in gold or silver will be too small to handle.

#### QUESTIONS.

1. Explain the conditions in which barter is possible. Why does the sale of money take the place of barter?

2. What functions are performed by money at the present time? Point out the inconveniences of Barter.

3. What qualities must a commodity possess to render it suitable for use as money? Why is it that gold and silver have been universally adopted as money?

4. Define money. In the light of your definition, discuss and say whether the following are money:—

cheques, a currency note, a pice, a hundi, a sovereign, a draft, a Victoria rupee, a postal cash certificate.

## CHAPTER 6

### Metallic Money and Paper Money

Money is generally classified as :—

(i) metallic money ;

and (ii) paper money.

#### 1. Metallic money.—

It consists of coins of metals like gold, silver, and copper. We shall discuss below certain special terms used in connection with this.

#### Free Coinage and Limited coinage.

When gold and silver were first used as money, they were lumps or bars of metal stamped into rings, discs, and roughly cut-pieces. All payments had to be made by weight and the metal had to be frequently tested to see if it was of the required purity. This was very inconvenient, and coinage, or the manufacture of metallic money was introduced so as to secure uniformity in coins of the same kind. [Coins are pieces of metal uniform in shape, weight and quality, stamped and certified as such by the mint of issue—their edges are also milled now-a-days to prevent clipping.]

If coins are minted for the public who offer bullion for the purpose, we have a system of **free coinage**. The public are allowed (are free) to present to the mints bullion (i. e., gold and silver in the form of metal) to be converted into coins to any extent. [This coinage need not, however, be necessarily free of charge. In this context the word "free" means "unlimited" and not "without charge".]

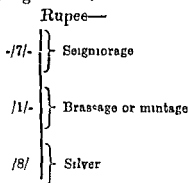
The opposite of free coinage is restricted coinage or limited coinage. We have **limited coinage** when it is done on government account only, and no private citizen is allowed to bring bullion to the mint and have it converted into coin.

There is no free coinage of the rupee in India. It is subject to limited coinage. But the sovereign in England was until recently open to free coinage. **Gratuitous Coinage and Non-gratuitous Coinage.**—

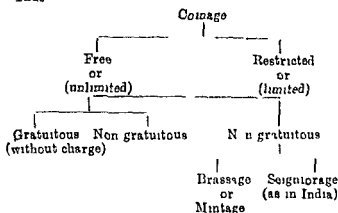
In a system of free coinage, if no fee is charged by the government for the work of making the coins, the system of coinage is known as **gratuitous**. It will exist where it is intended that the value of the coin should be equal to the value of the metal contained in the coin, so that it shall be possible to melt it down into bullion without any loss in value. Until a few years ago, the coinage in England was gratuitous.

But if the Government charges something for converting the metal into coin the system of coinage is known as **non-gratuitous**. If the fee charged is just equal to the actual cost of coinage, it is called **Brassage or Mintage**. If a fee larger than the cost of coinage is charged the difference between the amount charged and the cost of minting (i. e., the profit of coinage, which goes to the Government) is called the **Seigniorage**. In either case, the value of the metal contained in the coin is less than the value of the coin and the melting of coins is consequently discouraged. For example, in France, a 20 franc-piece contains gold only worth 19 francs and 96 centimes, and the amount

of 4 centimes, being the exact expense of coining a franc is taken out as *brassage*, while in India the rupee contains only about seven or eight annas worth of silver, and not only *brassage*, but a heavy *seigniorage* is charged on it.



Thus



### Limited Legal Tender and Unlimited Legal Tender

The law of a country fixes the coin in which debts may be discharged. This is called the legal tender. As it has the authority of the Government behind it, it cannot be refused by people. Failure to accept it amounts to an unlawful act and may result in prosecution. Full legal tender or unlimited legal tender is one in which the debtor has the

right to discharge his obligation to an unlimited extent, e.g., the £ in Britain, the Re. coins in India. Limited legal tender is one in which debts up to a fixed amount only can be discharged, e.g., shillings in England upto £1, the nickel and copper coins in India upto Re. 1.

*Example*—If a man owes me Rs. 500/- and offers payment in the form of rupee coins, I must accept the payment. If, however, he wishes me to accept payment in the form of  $500 \times 8 = 4,000$  two anna nickel pieces, I have a right to refuse payment in this form. The rupee is unlimited legal tender and can be offered to any amount. The two anna bit is subject to limited legal tender and can be forced on the creditor to the extent of only a rupee.

Generally speaking, standard coins are unlimited legal tender, token coins limited legal tender. The case of the rupee is an exception.

### **Standard Coins and Token Coins.**

The standard coin is one to which the values of all other kinds of money in the country are adjusted. It generally has a free coinage, and its legal value (except for the expenses of coinage, where they are charged) equals its metallic value, e.g., the pound in England is equal to 20 sh. officially. If it is melted, one can always have 20 sh. in currency in exchange for the melted gold. Before 20th Sept. 1931, the pound was the standard in Britain. It was the principal means of payment both within the country and outside, and the values of all token coins in the country were fixed with reference to them.

Standard coins should also be legal tender to any amount, i.e. the money must be by law accepted by a seller or a creditor in final discharge of debts, and since the exchange value of a standard coin is equal to its market value as a metal, it is bound to be acceptable to the seller or the creditor.

A token coin is one the value of which as a coin is greater than its value as a metal which is neither freely coined, nor is legal tender to an unlimited extent, and which is generally a subsidiary coin, used for purposes of small change, e.g. a shilling in England, an anna bit in India.

The case of the rupee in India is a peculiar one. It is token money because its value as a coin is greater than its value as metal and because it does not enjoy free coinage. But for all practical purposes it acts as a standard coin. It is unlimited legal tender and the values of all other kinds of money are adjusted to it. It has, therefore, been called a **'Standard Token coin'**. It is, however, useless for external payments because it will not be accepted in other countries.

Thus the difference between standard and token coins is as follow —

<i>Standard Coins</i>	<i>Token Coins</i>
1 Free coinage	1 Limited coinage
2 Legal value equal to metallic value	2 Legal value greater than metallic value
3 Unlimited legal tender	3 Limited legal tender

#### • **Debasement —**

A coin is said to be debased when it is issued

below the standard weight and quality, e.g., coins issued in the reign of Henry VIII in England. He introduced coins of less weight than the law required, to save money for his luxuries. A coin may also be debased when its weight and quality are reduced (a) by *clipping*, i.e., cutting away small portions from the edges of the coin—this has been made difficult by milling or marking the edges of coins—, or (b) by *sweating*, i.e., reducing the quantity of metal in the coins by the action of acids and chemicals, or (c) by *abrasion*, e.g., shaking up the coins in a bag and thereby removing very small particles of the metal. Debasement is, however, an offence punishable under law.

## 2. Paper Money.—

Besides money issued in the form of coins, money also circulates in the form of paper notes issued by the Government institutions, e.g., the Government mint or the Central Bank of a Government. This is necessary to meet the growing work of exchange in modern times. In England paper money is issued by the Bank of England which is not a Government institution. In India all paper money was so far issued by the Government, but is now issued by the Reserve Bank of India, under authority from the Government.

Paper money is of two kinds:—

(i) **Convertible Paper Money.**—This consists of notes which can be converted into coins whenever the note holder wishes. He has only to go to the bank or the office which issued it, and the bank or the office will convert it into coins on demand. For



example, Bank of England notes prior to the war. They were "good as gold" and enjoyed universal acceptability, because they were always convertible.

When the paper money is convertible the issuing authority has always to keep reserves of gold or silver to meet possible public demand, but as all the note holders are not likely to present notes for conversion at the same time, the amount of metal kept in the reserves is much less than the face value of the notes issued, the rest being backed by securities. (The security portion of the reserve is called the **uncovered or the fiduciary or the invested portion**.) For example, if there are notes worth 1000 crores in circulation, and the total amount of coins and precious metals in the reserve comes to 500 crores, while 700 crores have been invested in securities, then notes worth 300 crores are to be called covered and notes worth 700 crores are to be called uncovered or fiduciary.

[The amount of reserve in the form of metal or coins and in the form of securities differs in different countries. Governments in England, Japan and Norway, provide that a certain fixed amount of notes may be backed by securities, but the rest must be fully covered by metal in the reserve (Currency Principle). U. S. A., Germany and India allow a certain fixed percentage—30 to 40%—to be covered by metal and the rest by securities (Banking Principle). In any case, a portion of the reserve is kept in the form of investments or securities, and this portion is known as the *fiduciary portion of the Reserve*.]

**(ii) Inconvertible Paper Money (or Fiat Money)** — It represents nothing and confers a claim to nothing. It is pressed into service when the Government is hard pressed for money. It cannot be

changed into coins at the will of the holder, as the Government which issues it does not undertake to redeem it, and no reserves are therefore kept.

Inconvertible paper money is generally issued by the Government in times of emergency, e.g., a war. It is a convenient way of discharging such debts as the salaries of officers, the pay of the troops, etc.

Examples of inconvertible paper money are French Assignats in the days of the French Revolution, American Green-backs in the American Civil War, German Marks\* during the Great European War, and one rupee notes issued in India during the present world war. [These rupee notes represent nothing and confer a claim to nothing. They are brought into circulation when the Government is hard pressed for money. They are in the nature of a forced loan from the people without bearing any interest. Therefore, they are very unpopular.]

[If the Government enjoys the confidence of the people, even inconvertible paper money may be as valuable as any other form of money. Bank of England notes now-a-days cannot be converted into gold except for certain purposes, and, therefore,

\*During the German inflation of 1922-23 note circulation touched staggering figures. The increase in note circulation proceeded at such a rate that in the last month of the War, more than 300 paper mills worked at top speed to deliver note-paper to the Reichsbank and 150 printing companies had 2000 note-presses running day and night to print the Reichsbank notes.....Prices rose daily, almost hourly...money in the purse burned like fire, and everyone thought only how to get rid of it at the earliest opportunity.

would be called inconvertible, yet they are no less valuable than coins for the holder. Paper money in India is also convertible paper money in this sense only that rupees can always be had in exchange for notes; otherwise notes and silver rupees are both inconvertible, for no standard coin can be got in exchange for them. Convertibility of notes into silver rupees is maintained in India by means of reserves kept by the Government with the Reserve Bank of India.]

### **Advantages of Paper Money.—**

(1) The use of paper money is economical (*a*) the labour and capital now employed in mining precious metals may be saved by the use of paper and may be employed in other kinds of productive work; (*b*) the metallic money which is replaced by the paper money may be used for the purposes of art, or may be released for investment at home or abroad.

(2) The loss due to wear and tear is small in the case of paper money.

(3) It is easier to handle, and safer, cheaper and more convenient for making large payments and payments at a distance, than metallic money, because of its greater portability.

(4) It facilitates trade generally.

(5) It helps the government when its credit is low to raise necessary funds with less cost than it would have to meet if it resorted to borrowing.

### **Disadvantages—defects.—**

(1) The value of paper money is uncertain because it is dependent on the Government which can at any time rob it of its value.

(2) Paper money has a limited area of circulation—

it is not generally acceptable to the foreigners. It is only national money.

(3) Paper money is specially unacceptable because it has the danger of over-issue and depreciation. An over-issue of paper money is much easier than an over issue of metallic money. For example, during the present War many countries have been flooded with notes. Paper currency has been issued in such an excess that the value of money has gone down to one-third or one-fourth.

### QUESTIONS

1. Classify the various forms of money in circulation in the country and indicate the characteristics of each. Why is paper money preferred to metallic money ?

2. What is a coin ? Where is it made ? How does the system of coinage in England differ from that of India ( in normal times ) ?

3. Explain the following terms :—

Free coinage, Gratuitous coinage, Seigniorage, Standard and token coins, Legal tender, Fiduciary paper money.

4. Distinguish between standard and token coins. Can token money be legal tender ? What constitutes legal tender in India ?

5. "The rupee may be called a standard token coin." Explain.

6. How does the rupee, though unlimited legal tender, fail to satisfy all the conditions of standard money ?

7. What are the advantages of paper money ? How is its convertibility maintained in India ?

---

## CHAPTER 7

### MONETARY STANDARDS

#### INDIAN CURRENCY SYSTEM

The currency of a country includes both metallic money and paper money which circulate from hand to hand in monetary transactions, and different systems of currency are to be met with in different countries. We shall discuss these in this chapter.

The system of currency under which one or more metals are used as a standard of value is called "*Monetary Standard*", and the important types of monetary standards are :

#### 1 *Monometallism or the Single Standard* —

A system of currency under which one metal alone is used as a standard of value is called monometallism, or the Single Standard system, and the country is said to be a mono-metallic country.

Under this system, either gold or silver is freely coined and is full legal tender, while for the sake of making small payments base metals are coined at the discretion of the Government and made legal tender to a limited extent.

If the standard money consists of coins of gold then the system is known as **Gold Standard**, while if it consists of silver it is known as **Silver Standard**. Upto September 21, 1931, England had the Gold Standard, and so many other countries had it. China, on the other hand, had until recently the Silver Standard.

#### 2. *Bimetallism or the Double Standard.*—

A system of currency in which two metals,

usually gold and silver, are used as standards of value is called Bimetallism or the Double Standard system, and the country is said to be a bi-metallic country.

Under this system both gold and silver are given the privilege of free coinage, and are unlimited legal tender, and there is generally a fixed legal ratio between the value of the two. For instance, if in U. S. A. a silver dollar contains 15 grains of silver for every grain of gold in a gold dollar, the ratio between the two standard coins would be 15 : 1, and a debtor would have the choice of making payment either in gold or in silver money, i.e., he may pay either 1 gold dollar or 15 silver dollars.

It is claimed that this system makes the exchange between gold-using and silver-using countries easy, and also can effect greater stability of prices in the country on the ground that two metals in circulation provide a sort of compensatory influence over each other (*the law of compensatory action*). For example, if demand for silver falls off, silver becomes cheaper, but because it is also legal tender people will mostly take silver to the mint and keep back gold. There would thus be a demand for silver and it would rise in price. Simultaneously, the demand for gold would fall and its price would fall too. Thus the two metals will be brought back to the same position as their relative value as coins, and the relationship between silver and gold will remain more or less constant.

But the trouble with this system is that if one metal becomes cheaper than the other, the coins of the dearer metal begin to go out of circulation under the operation of Gresham's law (read the example below), and it becomes very difficult to maintain a fixed ratio between the two metals for any length of time. Suppose the ratio between gold and silver is fixed at 1 : 15. Suppose also that the metal gold rises in value in the market, and a tola of gold becomes equal to 17 tolas instead of 15 of silver. Now people will sell gold coins in the market by weight and with the silver that they get they will obtain 17 silver coins from the mint, i.e., they will gain two silver coins. (Thus a person having 1,000 gold dollars with him would be able to get 17,000 silver dollars. He can get back his 1,000 gold dollars by paying 15,000 silver dollars to the mint, and also gain 2,000 silver dollars, in the bargain). Thus many people would sell their gold and purchase silver to get it changed into coins by the mint, and silver will go to the mint while gold will travel to other countries. To meet this difficulty, it was once suggested that all countries in the world should have bimetallism at the same time, so that Gresham's law may not operate, but this scheme did not materialise, nor is it likely to materialise in the future, for various reasons.

Bimetallism was adopted by Europe and America in the 18th century, and till the last quarter of the 19th century it was the leading monetary system of the western world (except in Great Britain which adopted the single standard

of gold a little earlier in 1816). It has, however, lost its importance now altogether and is only of historic interest.

(For some time a system was introduced in France, etc., according to which gold and silver coins were both unlimited legal tender but only gold coins had a free coinage. This system was known as *Limping Bimetallism*—limping, because silver not being freely coined was “limping” or acting with difficulty.)

[These metallic standards are, however, possible only when plenty of gold (or silver) is available. But when the world is faced with a gold famine, as at present, the currency consists generally of paper, and the currency authority does not bind itself to convert it into gold. The result is that we have the **Paper Standard or Managed Currency Standard**. No doubt a currency system based on mere paper is not likely to be very popular, but new policies and new monetary theories now hold the field, and both monometallism and bimetalism are gradually becoming things of the past, while paper standard is becoming the order of the day.]

### The Gold Standard

The gold standard is so called because under it gold is the measure of value of goods and services, and all the debts are payable in gold. A country is said to be on the gold standard when it maintains its monetary unit (the pound sterling in Great Britain, the franc in France or the dollar in U. S. A.) at a value equal to that of a definite weight of gold; in other words, when the purchasing power of a unit of its currency is kept



equal to the purchasing power of a unit of gold. This means that every country on the gold standard shares a common currency—one calls its currency units pounds, another dollars, another francs, and so on, but gold is international money, all the same, and the gold standard provides practically fixed rates of exchange between the countries on it. For, if the currency of each country is convertible into gold, or into a gold standard currency, at a fixed rate, and conversely, it follows that the currencies of these countries are convertible into one another at practically fixed rates. If £ 1 and 4.866 dollars can both be exchanged for the same amount of gold, and conversely, then the exchange value of £ 1 cannot long remain above or below 4.866 dollars by more than the relatively small cost of sending gold from New York to London or from London to New York. And this means that the price of any thing in dollars cannot long exceed or fall short of  $\frac{4866}{1000}$  of its price in pounds, plus or minus transport charges etc. In other words, commodity prices in one country must move in harmony with commodity prices in other gold standard countries.

The gold standard was first adopted by Great Britain in 1816, and her example was widely followed during the last 30 years of the 19th century, when bimetallism came to be discarded by Germany, France, U. S. A., etc. It thus became the world's most approved system and held this

pre-eminent monetary position until the outbreak of the great European war in 1914; and various forms of the gold standard were introduced in different countries:—

1. Gold Currency Standard,
2. Gold Bullion Standard,
3. Gold Exchange Standard.

### **1. Gold Currency Standard or the Full Gold Standard:**

Under this form gold coins of a certain weight and fineness were actually used as currency. Paper money was made convertible into gold coins on demand. At the same time, free coinage of gold, free melting of gold coins and free export and import of gold were allowed, and we had a perfectly natural and automatic system of currency.

Until recently this was the form of gold standard; but the force of necessity during the last great European War as well as advance in economic thought made people realise that actual gold coins passing from hand to hand were an unnecessary luxury, and that we could have all the essentials of a gold standard without having gold coins actually in currency. Two other arrangements, namely, the Gold Bullion Standard and the Gold Exchange Standard, thus came to be admitted as genuine forms of the gold standard which were believed to be more economical.

### **2. Gold Bullion Standard.—**

During the last great European War gold coins ceased to circulate in most countries, and gold currency standard became a thing of the past. When Great Britain returned to gold standard

after the war, she introduced important modifications and adopted what is known as the Gold Bullion Standard

Under this system, while gold was the measure of value gold no longer circulated as coin. We had a gold standard without a gold currency. The Government did not issue gold coins, but bound itself to purchase and sell gold at fixed rates. That is to say, though paper money ceased to be convertible into coins it could be converted into gold bullion still (anybody could give notes and buy gold from the Government at the fixed rates) and thus a true link with gold was maintained without gold coins being actually in circulation. Even free exports and imports of gold were allowed under the system.

The example of Great Britain was followed by other countries also. Even in India, the Government bought and sold gold in the form of bars containing a fixed weight (400 fine ounces=106½ tolas). Some approaches were made towards the Gold Bullion Standard, though its introduction in a full fledged form was never achieved.

### 3 Gold Exchange Standard —

This was in use before the last great European war in certain countries like India, the Straits Settlements and the Philippines, Australia and Denmark. And even after the War there was for some time a tendency towards its adoption by European countries like Germany, Italy and Belgium which could not afford the luxury of a large stock of gold in their reserves,

Under this system the internal currency consisted of cheap token coins of silver or paper and was maintained at a certain fixed value in terms of gold for foreign purposes. For example, in India, before the Great European War, the value of the rupee was fixed at 1s. 4d.; and gold was made available in London for external purposes at this rate, while the internal currency consisted of notes and silver.

The gold exchange standard, if properly worked, secures a great economy of gold for monetary purposes. All the waste due to wear and tear of coins is saved, and gold can also be lent to other countries and interest secured. It is, therefore, especially suited to poor countries. But there are the following **drawbacks** :—(i) It requires a good deal of control over currency and exchange, and does not provide a natural and automatic expansion or contraction of the currency, which is the essence of the Gold currency Standard. (ii) It necessitates the maintenance of large reserves and thus locks up huge quantities of gold and silver without being used for industrial purposes. It is thus un-economical. (iii) It is difficult to maintain a stable rate of exchange with other countries at all times, and a great loss may be caused to the country when the rate rises or falls abnormally. In India, for example, very large sums had to be frittered away from the Reserves in the attempt to maintain an artificial value of the rupee in the past.

*Note*:—If instead of making the currency of the country convertible into gold for foreign pur-

poses, the country links it to sterling or dollar (or any other independent currency) the monetary system will be known after the name of the particular currency to which it is linked. For example, the present Indian currency system is called the **Sterling Exchange Standard**, because the value of the rupee for foreign purposes is now-a-days fixed in terms of the sterling—Re 1 = 1s. 6d. sterling [Formerly the value of the rupee was fixed in terms of gold and the system was known as the Gold Exchange Standard, now the value of the rupee is fixed in terms of sterling (£ s d) and the system is known as the Sterling Exchange Standard]

This system is generally unpopular, because it is unwise in principle to link the currency of one country to that of any other country. The first country has to share in the economic fluctuations to which the other country may be subjected. India has actually suffered considerably owing to this arrangement with England to whose currency her currency is linked.

### Gresham's Law

When different coins are in circulation, all of them are not alike. Some are fresh from the mint, and some have been worn out by constant use. And it has been seen that there is a general tendency among people to keep back fresh coins when they are received by them, and to pass on those that are old or dirty. The result is that the more dirty and the more worn out coins circulate freely, while new and fresh ones are kept back for a long time. If it could be possible to keep back

fresh and new coins for a considerable period, or use them otherwise than as money, one would see only worn-out coins in the market. Sir Thomas Gresham, a financial adviser of Queen Elizabeth, observed this tendency among people and put his observations in the form of a law known, after him, as Gresham's Law :—

**“Bad money drives good money out of circulation.”**

The question naturally arises—what is good money ? what is bad money ? Bad money does not necessarily mean counterfeit coins. Bad money is that money which contains less value than good money.

(i) When coins of the same metal circulate side by side, old and worn out coins contain smaller value than new coins, as the former lose some weight of metal by constant use. So new coins are good money, and old worn-out coins are bad money.

(ii) When paper money and metallic coins are in circulation, the former contains less value than the latter. So paper money is bad money and the metallic money is good money.

(iii) Lastly, when both gold and silver coins circulate side by side under bimetallism, either gold or silver coins will drive the other from circulation. [Read the example given under the heading Bi-metallism.]

The next question that arises is—how does the good money disappear from circulation ? It goes out of circulation in three ways :—(i) When we

have two coins—one old and the other new—we first offer the old coin, and try to keep back the new one. In this way good money is hoarded, and bad money circulates (ii) Similarly people like jewellers and goldsmiths who want to melt gold or silver coins for preparing ornaments choose the new coins for melting—these contain full weight. If bad coins are melted, the jewellers and goldsmiths are likely to get less than the full value of the coins as these have lost some metal through constant use. (iii) Again the foreigners who insist on being paid in metallic money will be paid in the more valuable coin (because foreigners do not accept the coins of a country on their face-value but purely as so much weight of metal). Thus the good money is either hoarded, melted, or sent abroad, and bad money is left in circulation.

However, we must remember that there are certain limitations to the law. When the entire money in a country is required by the demands of trade, the law cannot work, e.g., if I have Rs 10/- and have to buy things worth Rs 5/ I shall keep back five good coins and pass on five bad ones, but if I have Rs 10/- and want to buy things worth Rs 10/, I cannot keep back any good coin, and both the good and the bad coins will be in circulation. Similarly, when the bad coins are so bad that nobody is willing to accept them, good coins will have to be in circulation. Sometimes under the influence of habit also, bad money and good money may continue to circulate side by side for a long time before people become aware of the

difference in value. Again, the law need not necessarily apply in a country where token money is unlimited legal tender, like the rupee in India, for the value in exchange of these coins is always more than its value as a piece of metal, and there is no point in attaching greater value to them than to other token money.

Anyway, in modern times the operation of Gresham's Law is obviated by a very careful control of the circulating coins—by the expansion and contraction of currency according to need.

### **The Indian Currency System**

The currency system in India at present is what is known as the **Sterling Exchange Standard**. That is to say, for internal purposes, we use token money—currency notes, and rupees or notes printed on silver; but, for external purposes, the Government undertakes to give sterling (Bank of England notes) in London in exchange for rupees tendered in India at the rate of 1s. 6d. per rupee, and vice versa. Thus the **internal currency** consists of both (a) metallic and (b) paper money.

Metallic money consists of the silver rupee and the eight-anna piece, four anna and two-anna silver and nickel pieces, one anna nickel piece, and bronze pice, half-pice and pie. The rupee is 180 grains in weight and so far contained 165 grains of pure silver and 15 grains of alloy, but now it contains only 90 grains of silver and the rest of alloy. It is a token coin, but it is the principal medium of exchange and standard of value, enjoying unlimited legal tender—it is a standard-token coin. And



all the profits of coinage are utilized to increase the funds known as the *Gold Standard Reserve*

Paper money on the other hand, consists of (i) convertible notes of the value of Rs 2, 5, 10, 100, 1,000, 10,000 issued by the Reserve Bank of India and guaranteed by the Governor General in council, (ii) convertible notes of the value of Rs 50 and Rs 500 issued previously by the Government of India and taken over by the Reserve Bank of India, (iii) the one rupee notes issued by the Reserve Bank of India in 1940, which occupy a peculiar position in the currency system in that while notes of bigger denominations are convertible into them, they themselves are not convertible into rupee coin and are treated in the assets of the Reserve Bank like rupee coin. These notes are convertible because the Government keeps a *Paper Currency Reserve* including gold and silver metallic reserve of not less than 50% of the total circulation, and because these notes are not required to be convertible into standard coins of full value, but only into rupees which are themselves token coins, or into one rupee notes which are equivalent to rupee coins for all purposes. (During the present war, however, convertibility of notes into rupee coins has been considerably restricted, and the whole of the note issue may be described as inconvertible for all practical purposes.)

Recently the Gold Standard and the Paper Currency Reserves have been brought together and kept under the control of the Reserve Bank of India, with stipulated regulations and restrictions,

under the name "Currency Reserve". The position of this combined reserve is as follows:—

### RESERVE BANK OF INDIA

Statement of accounts for the week ending July 13, 1945.

#### Issue Department

##### *Liabilities*

Notes held in the Banking Department	...	11 crores
Notes in circulation	...	1,141 crores
	...	<u>1,152 crores</u>

##### *Assets*

A. Gold Coin and Bullion		
(a) Held in India	...	45 crores
(b) Held outside India	...	Nil
Sterling Securities (i.e. investments in London)	...	1,034 crores
B. Rupee Coin	...	15 crores
Government of India Rupee Securities	...	58 crores
	...	<u>1,152 crores</u>

[The law is that of the total amount of assets not less than 40% shall consist of gold coins, gold bullion, or sterling securities, provided that the amount of gold coins and gold bullion shall not, at any time, be less than 40 crores of rupees in value; and the rest shall be held in rupees and in Government of India securities, provided that the amount of rupee securities of the Government of India shall not exceed 25% or 50 crores, whichever amount is greater. Not less than 17/20ths of the gold shall be held in India.]

The Bank is, however, authorised to reduce the gold reserve below 40% under certain circumstances and must in that case pay a tax on the deficiency.]

For purposes of external currency the Government, through the Reserve Bank of India, under-

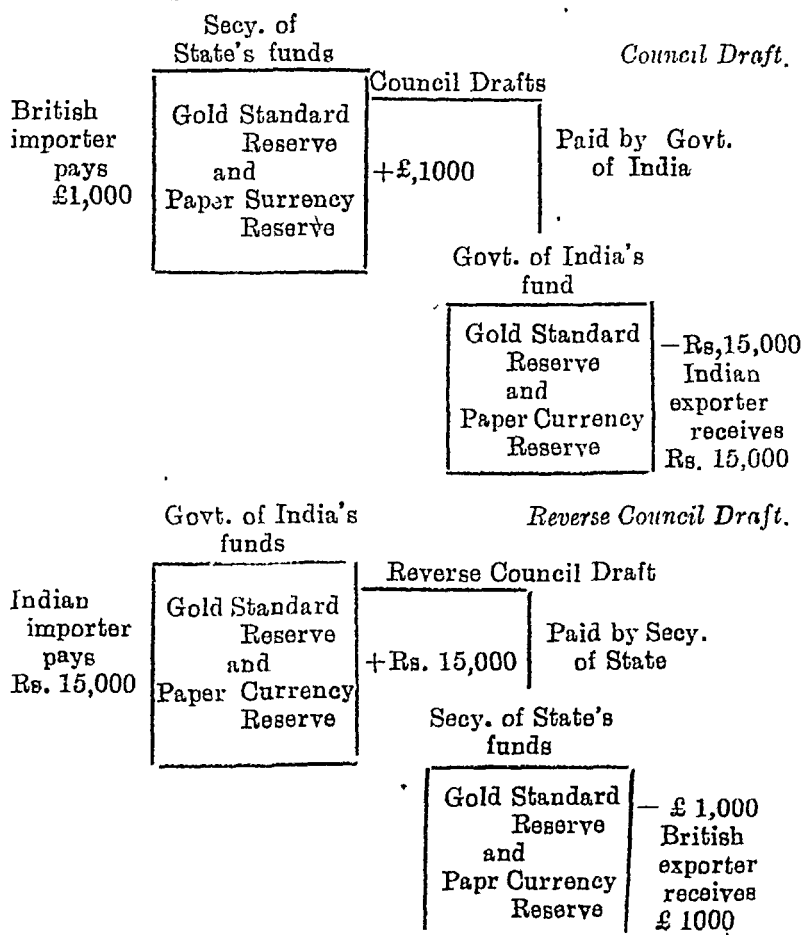
takes to exchange rupees into sterling, and sterling into rupees at the rate of 1s 6d per rupee. This artificial value of the rupee is maintained with the help of the reserve mentioned above. It is divided into two parts—the gold portion, which is kept in London, and the silver portion, which is kept in India. The Reserve Bank of India utilises these to buy and sell rupees at the established rate\*. When Indians have to send money to foreign coun

\*Formerly this used to be managed by the sale of Council Drafts or Council Bills (also known as Councils simply) and Sterling Drafts or Reverse Council Bills (also known as Reverse Councils simply). Council Drafts were orders by the Secretary of State to the Government of India to pay rupees in return for sterling received by him. Reverse Council Drafts were orders by the Government of India to the Secretary of State to pay sterling in return for rupees received by them. The rate of exchange used to be Re 1=1s 4d.

When Londoners wanted to remit money to India (i.e. Indians had to receive money from outside for exports, etc.) the Londoners went to the Secretary of State, purchased Council Bills (the proceeds being deposited in the gold portions of the Paper Currency or Gold Standard Reserve in London) and sent them to their creditors in India who realised the amount from the Government of India (which cashed the bills out of the silver portion of the Gold Standard Reserve or the Paper Currency Reserve in India). Similarly, when Indians had to send money to foreign countries (e.g. foreigners had to be paid for imports) they went to the Government and purchased, with rupees, Reverse Council Bills, and sent them to their creditors in foreign countries who ultimately realised their value from the Secretary of State (out of the London branch of the Gold Standard Reserve or the Paper Currency Reserve) on whom they were drawn.

tries, they go to the Bank and purchase sterling drafts of immediate delivery in London at a rate not below 1s. 5 $\frac{1}{4}$  d. for a rupee (which corresponds to the lower specie point, i. e., 1s. 6d. *minus* the cost of remitting this amount to London), provided that no person is entitled to demand to buy an amount of sterling less than £ 10,000. (This prevents the rate of exchange from falling below

The diagrams given below indicate the mechanism of Gold Exchange Standard:—



1s 5½ d, because when the Bank is willing to sell bills at this rate to any extent, why will anybody accept less than 1s 5½ d for a rupee from any one else). The Bank also buys from any person who makes a demand in that behalf sterling for immediate delivery in London at a rate not higher than 1s. 6½ d. (which corresponds to the upper specie point, i.e., 1s 6d. *plus* the cost of remitting this amount from London to Bombay), provided that no person is entitled to demand to sell an amount of sterling less than £ 10,000 (This prevents the rate of exchange from rising above 1s 6½ d, because when the Bank is willing to buy sterling at this rate to any extent why will anybody give more in the form of sterling to have a rupee from any one else). Thus the rupee has got an external value which is fixed at 1s 6d. ratio, and being managed as shown above cannot rise above this rate, or fall below it.

[Note —Sterling Exchange Standard was introduced in India in 1931. Before that she had the Gold Exchange Standard, and the rupee in India was convertible into gold in London, while gold in London was convertible into rupees in India, at the rate of Re. 1=1s. 4d Sterling took the place of gold in 1931 when England went off the Gold Standard, i.e., the people could no more demand gold from the Government or the Bank of England in exchange for notes]

### QUESTIONS

1 What is meant by monetary standards? By what name is the monetary standard obtaining in India called? Show how it functions.

2. Point out the difference between Gold Standard, Gold Bullion Standard and Gold Exchange Standard. Answer with special reference to India.

3. What is Gresham's Law? Explain it briefly and point out its limitations. Why is it that Indian currency notes do not drive silver rupees out of circulation?

4. Discuss clearly the essential features of the Indian currency system. How is the convertibility of paper money maintained in India?

---

## CHAPTER 8

### CREDIT MONEY

#### What is Credit —

Money is a good medium of exchange but it is not sufficient to meet the demand for it owing to the large amount of exchanging work of modern times. Men have, therefore, devised a cleverer though more difficult, way of exchange than money. This is credit.

The practice of borrowing money and promising to repay the loan at a future date—also the practice of receiving goods and promising to pay the price of the goods at a future time—has existed since very early days of human history. A man wants a hundred rupees, and, if he has nothing to offer in exchange, he borrows by writing a promissory note. Another man wishes to purchase goods for his shop, but cannot pay for them. He gives a written promise to pay the price at some future date. In either case, capital has been put by one man at the command of another to be repaid at future date. This practice—“a promise to pay at a future time for a valuable consideration received in the present”—is called credit.

When a credit transaction takes place there is a time interval between the transaction itself and the actual settlement of the transaction. Also, when a person parts with his goods in exchange for a mere promise to pay money, he does so because he has confidence in the ability and will of the debtor to make payment when it falls due,

Thus time and confidence are the two elements of credit, and a person's credit is said to be good or bad, according as people have, or have not, confidence in him, that is to say, according as people readily accept, or not, his word or signature as a guarantee for future payment.

Now, in a credit transaction the receiver of credit promises to pay cash at some future date. These promises are usually written down on paper, and are known as *credit instruments*, the chief among which are:—

- Cheques
- Drafts
- Bills of Exchange
- Hundies
- Promissory Notes.

#### Cheques.—

A cheque is an order drawn on a bank by a depositor, calling upon the bank to pay a specified sum of money to the person named in the cheque, or to his order, or to the bearer. The cheque will be accepted only when the man receiving it has confidence in the drawer of the cheque and also in the bank on which the cheque is drawn; and if there is this confidence the cheque is as good money as a bank note. It can also be transferred from person to person any number of times by signing on the back of it.

The use of cheques has effected a great economy in the use of precious metals. Let us see how. Suppose that A owes B Rs. 100, and writes a cheque for the amount. B may present the cheque to



the bank and obtain payment in cash. But he may be a depositor of the same bank, and will then send the cheque to the bank. The Bank will simply debit A's deposit account by Rs. 100 and credit B's account with this sum. So the payment is made by entries in the bank without any transfer of cash. A similar thing almost will happen if A and B have accounts in different banks. Claims will be offset and only the difference will have to be passed from one bank to another by means of cheques. Again, large sums can easily be transferred. Money can be sent to distant places at small expense. The necessity of keeping large sums of money in hand can be done away with. And these cheques can be drawn for actual sums of money that one has to pay, even to the nearest pie, for example, a cheque can be issued for Rs 99/15/4, while notes are only for round figures like Rs 5, Rs 10, Rs. 100, etc, etc.

#### **Cheques are of several kinds :**

(1) *Payable to bearer*—these are convenient, but not safe. Any person who has the cheque can go to the Bank and get the amount.

(2) *Payable to order*—these are safer, because the person in whose favour the cheque has been drawn can get the amount from the Bank only when he is known to the Bank.

(3) *Crossed cheques*—these are safer still, as the payment of the amount of the cheque cannot be made to any person except through a Bank, i.e., the amount can be transferred to his account with a Bank, and cannot be paid in cash; so that no

wrong person can realise the amount by false representation.

The crossing is done by drawing two transverse parallel lines on the face of the cheque with the words ' & Co.' or 'Not Negotiable' written in between them. The cheque is said to be crossed generally in case it has only two parallel lines, with "& Co." or "Not Negotiable", but without the name of a bank within it. It is said to be specially crossed if, in addition to these words, there is also the name of some bank within the two transverse parallel lines contained therein. In the latter case the cheque can be paid only through the particular bank whose name is mentioned within the crossing.

(When a cheque is sent to a Bank for encashment it is said to be "*presenting*" the cheque. If it is cashed it is said to be "*honoured*"; and if it is not cashed for some reason—say, when there is no money in the account—it is said to be "*dishonoured*".)

*Difference between money and cheque, (or any other credit instrument).—*

Cheques are not 'money' in the strict sense because (i) They have not got the first and essential quality—general acceptability. They are acceptable only to those who have confidence in the drawer of the cheque; and, therefore, they do not pass as freely from hand to hand as money does. (ii) The transaction is not complete until the cheque has been paid out—that is, there must be some waiting in the case of a cheque, whereas money transaction is complete on the spot. (iii) One is not bound to accept cheques, since they are not

legal tender. (iv) And, if a cheque is not honoured, i.e., if its amount remains unpaid for any reason, the amount can be claimed again. The responsibility of the drawer for the payment continues till the time of actual payment. Therefore, cheques are regarded as credit instruments and not money. They are money only in a wide sense of the term

### SPECIMEN FORM OF A CHEQUE

No. \_\_\_\_\_ Aligarh \_\_\_\_\_ 1945

The Imperial Bank of India

Aligarh

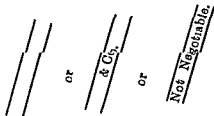
Pay \_\_\_\_\_ or *bearer*  
*order*

Rupees \_\_\_\_\_

Rs.

\_\_\_\_\_  
(Signature of depositor)

*Note* When a cheque is meant to be a crossed cheque, two parallel lines are drawn across the cheque as


  
 // or // & Co. or // Not Negotiable.

And when the cheque is specially crossed the crossing is like this :—

Allahabad Bank Ltd.

### Drafts.—

Drafts are cheques drawn by one bank upon another, or upon its own branch at a different place, requesting it to pay the sum of money mentioned therein to the person named, or to his order, or to the bearer, on demand.

Persons desirous of sending money to distant places can do so very easily and economically by means of these Drafts. They can go and deposit the amount to be sent in a local bank, and ask it to issue a draft in favour of the person to whom they want to send the money. The Bank will charge some commission and give the draft which can be sent by post and can be immediately presented for payment on receipt of it by the person who has to receive the money. The amount will be paid because different banks, or different branches of the same bank, have their accounts with one another, and the amount paid can be easily adjusted between them.

The question arises why should money be sent by drafts and not by cheques, even to distant

places. The reason is that it takes a longer time to get payment of the amount of a cheque than in the case of a draft. The draft will be paid immediately it is presented to the bank on which it has been drawn, for the signatures of the drawer are already known to the bank, but a cheque will first be sent to the bank where the drawer has an account and will be payable only when information has been received that there is money in the account of the drawer, that the signatures of the drawer are genuine etc, etc

### SPECIMEN FORM OF A DRAFT

Imperial Bank of India,

Aligarh, \_\_\_\_\_ 1945

No

Rs

On Demand pay to \_\_\_\_\_

Rupres

\_\_\_\_\_ or order,  
\_\_\_\_\_ value received.

For Imperial Bank of India

\_\_\_\_\_ Agent

To

Imperial Bank of India,  
Bombay

### Bill of Exchange.—

A bill of exchange is an order drawn by a creditor, say A, on a person B (his debtor) calling upon him to pay to C (a third person) or order, a certain sum of money specified in the bill [ A is known as the *drawer*, of the bill, 'B the *drawee*, and C the *payee* ]

## SPECIMEN FORM OF A BILL OF EXCHANGE

( Foreign Bill )

Rs. \_\_\_\_\_

Aligarh \_\_\_\_\_ 1945.

*At Sight pay to* \_\_\_\_\_\_\_\_\_\_, or order,  
the sum of *Rupces* \_\_\_\_\_, value  
received.*To J. Smith,*

London.

or

Rs. \_\_\_\_\_

Aligarh \_\_\_\_\_ 1945

*Thirty Days after sight, pay to* \_\_\_\_\_\_\_\_\_\_, or order,  
the sum of \_\_\_\_\_, value  
received.*To J. Smith,*

London.

## Foreign Exchange.

We have seen how instead of making payments in gold or coins, people pay for their imports and receive payments for their exports by means of foreign bills of exchange. The question, however, remains that the money of one country is different from the money of another country. How are the rates of the foreign bills of exchange fixed ?

Like the value of any other commodity, the rate of exchange depends upon the supply of, and demand for, bills in the market, that is, upon the fact whether the exports of the country are greater than the imports, or the imports are greater than the exports. When the exports from the country are greater, the supply of bills is large, as more people have to get money and issue bills of exchange. When the imports into

## (INLAND BILL)

Rs \_\_\_\_\_

Aligarh \_\_\_\_\_ 1945

At Sight pay to \_\_\_\_\_

\_\_\_\_\_, or order,  
 the sum of Rupees \_\_\_\_\_, for  
 value received.

To \_\_\_\_\_

Bombay \_\_\_\_\_

or

Rs \_\_\_\_\_

Aligarh \_\_\_\_\_ 1945.

Thirty days after Sight pay to \_\_\_\_\_

\_\_\_\_\_, or order,  
 the sum of Rupees \_\_\_\_\_, for  
 value received

To \_\_\_\_\_

Bombay \_\_\_\_\_

the country are greater, the demand for bills is large as most people have to send money and buy bills of exchange

[Exports and imports of a country are not however the only items which are to be taken into consideration in determining the balance of trade of a country. We have also to take into consideration whether the country has to receive or pay freight charges, charges for shipping service interest charges on capital, loans of money, subscriptions for charitable purposes, expenses of students or tourists residing or travelling abroad, etc., etc.,—the invisible items of export and import which generally escape the eyes of the public and for which no records are kept. For example, England being a great capitalist country has invested huge sums of money in America, Canada,

[These bills are known as Foreign Bills of Exchange, if they are drawn in one country, and are payable in another, and as Inland Bills of Exchange, if they are drawn and are payable within the same country. The latter are mostly in the vernacular—and are then known as Hundis.]

### What is a Bill.—

In modern times every country has a considerable amount of foreign trade. As it sells goods to foreign countries so it buys goods from them. And when a country buys, it has got to pay for its purchase. What shall be the form of payment?

The foreigners would not accept payment in rupees because rupees are token coins. They would accept payment in gold which is accepted throughout the world. They could also accept anything else which would give them the right to have gold or purchasing power, e.g., a Bill of Exchange.

This Bill of Exchange is an order to pay. The order is not on a Bank but on an individual or a India and other parts of the world, and receives interest and profits from these countries, while India has to pay freight charges of ships that carry on its foreign trade, interest on foreign capital, expenses of Secretary of State's office in London and other items of Home Charges. All these have to be taken into account in finding out whether the balance of trade, or rather the balance of accounts, is in favour of the country or against it.

When the total credits of a country exceed the total debits, that is, the country has to receive more from foreigners than she has to pay them, the country is said to have a *favourable balance of trade*. When the total debits of the country exceed the total credits, that is, the country has to pay more to foreigners than she has to receive from them, the country is said to have an *unfavourable balance of trade*.]



firm. It is made payable either at sight or at any future date stipulated in the bill (say 30, or 60, or 90 days after the bill has been drawn). If it is made payable on demand it is known as a '*sight bill*', if it is made payable after some time, it is known as a '*time bill*' or '*usance bill*'. If it is payable within 10 or 15 or 20 days, say, it is called a '*short*' bill; if it runs for a longer period it is a '*long*' bill. It is also known as a '*Telegraphic Transfer*' when immediate payment is arranged by a telegram through some Bank.

*Example*—In India a merchant who sells Rs. 13 000 worth of goods in England would like to receive payment in Indian rupees and not in British money, because £. s. d. do not circulate here. The

---

Now, when the supply of bills is large (i.e., more people have to receive money than have to send money), the rate of exchange will fall, and exchange will be said to be *favourable* to the country (i.e., more foreign currency will be available for a given amount of local currency, or, what amounts to the same thing, less of the local currency will have to be paid for foreign currency). And when the demand for bills is large (i.e., more people want to send money), the rate of exchange will rise, and exchange will be said to be *unfavourable* to the country, (i.e., less foreign currency will be available for a given amount of local currency, or, what amounts to the same thing, more of local currency will have to be paid for foreign currency). For example, when  $\text{Rs. } 1 = \text{ls. } 6\text{d.}$ , we say that the rate of exchange is *favourable* to India, while if  $\text{Rs. } 1 = \text{ls. } 4\text{d.}$ , we say that the rate of exchange is *unfavourable* to India.

[The terms *favourable* and *unfavourable* exchange are however, misleading. For example, when exchange is *favourable* to the importers, it is *unfavourable* to the exporters, and

English merchant who sells goods to India worth £ 1,000 would similarly like to receive payment in British money, because rupees do not circulate in England. These difficulties can be met by buying an equivalent amount of gold and sending it to the foreign country concerned; but there would be many difficulties in doing so, for example, in buying the necessary gold, in packing it securely, in insuring it, and in arranging its transport. All this would involve much expense and worry, and bills have been invented to avoid these difficulties. By means of these bills, credits and debits in one country can be easily cancelled against those in another, without any money actually passing. And this means a great economy in the use of precious metals.

---

when it is unfavourable to the importers it is favourable to the exporters. Besides, when the exchange is favourable to the country, exports begin to decrease and imports begin to increase; and when the exchange is unfavourable to the country, the tendency is for the exports to increase and the imports to decrease. Exports and imports influence the rate of exchange, and the rate of exchange influences the exports and imports. This is why we desire to have neither a favourable exchange nor an unfavourable exchange but only a stable rate of exchange.]

#### Specie Points.—

Though the rate of bills depends upon supply and demand, there is a limit to the rise or fall in the rate. If the rate goes too high or too low, people will begin to receive or remit gold by actual shipments of gold, rather than deal in bills of exchange. The limits to which the rates of exchange can usually move are known as 'gold points' or 'specie points'—the upper and the lower gold or specie points—and are determined by the cost of moving gold between two countries, i.e., the cost of

### Working of a Bill —

A in India exports Rs 13,000 worth of Jute to B in England. Another person C in India imports £ 1,000 worth of woollens from D in England. A, therefore, has a right to claim Rs 13,000 from B, and D has a right to claim £ 1,000 from C. If it is so arranged that B the debtor in England pays his debt of Rs 13,000 to D the creditor in England, and C the debtor in India similarly pays his debt of £ 1000 to A, the creditor in India (provided of course that Rs 13,000/ are equal in value to £ 1,000/), then both 'the debts can be cancelled. This is possible by means of a bill of exchange as follows —

A in India draws a bill on B in England for the sum of Rs 13,000. He sells the bill to C, also in India. He pays for the bill the cost of freight, carriage, packing, insurance, commission to banks etc., etc.

Let us take the case of two countries, both of which are on the gold standard. Suppose the value of gold contained in £1 in England is equal to the value of gold contained in 4 866 dollars in America. [This ratio—£ 1 = 4 866 dollars—is known in technical language as the *Mint Par of Exchange* between England and America.] Now an English importer can pay by shipping gold sovereigns to America and getting them minted into dollars at \$4 866 = £ 1. Let us suppose the cost of shipping sovereigns to America is 0.24 dollars for each sovereign. The net value of each sovereign when it reaches America would be 4 866 - 0.24 or 4 842. If American bills rose in price on the English market so that an English importer had to take less than 4 842 for each sovereign it would pay him better to ship sovereigns and he would do so. This point \$4 842 to a £ is called the *outgoing gold or specie point*. If an American importer, on the other hand, sent dollars to England, they would be minted at \$4 866 to a £. The cost of shipping is 0.24

India, who pays him in rupees and sends the bill on to his creditor D, in England, who takes it to B, the debtor in England, on whom the bill is drawn, and gets the amount of the bill from him in pounds. Thus the debtor C, finds it much easier, and cheaper, to pay in rupees, while the debtor B finds it much easier, and cheaper, to pay in pounds; and both A and D are also satisfied as they receive the value of their goods in their own money—one bill discharges both the debts.

dollar. Hence, the American importer would be willing to pay for each £ 1,  $\$4.866 + .024 = \$4.89$ , but no more. This is the point at which gold is sent to England and is called the in-coming gold or specie point.

Suppose again that the mint par of exchange between England and France is £ 1 = 25.22 francs, and the cost of sending gold is, say, 10 francs. And suppose a Frenchman had to pay a debt of £100 to an Englishman, he could either send 2522 francs, and spend 10 francs in sending it, i.e., spend 2532 francs in all, or he could buy bill by payment of a smaller number or an equal number of francs. If the Bank wanted a higher rate than 25.32, i.e., if it demanded, say, 2534 Francs before it gave a bill or a draft for £100 on England, the Frenchman would not purchase the draft, and pay extra 2 Francs for £100. Similarly; if the Frenchman had to get £100 from London and the rate of the bill was 25.10 francs (this means that if the Englishman sent him a bill, the Frenchman could sell it and get only 25.10 francs), he would not ask the Englishman to send a bill as that would bring him 2 francs less, but would ask him to send gold instead. And thus it is that the rate of exchange between England and France, under ordinary conditions, tends to oscillate about the Mint Par of Exchange, and does not go above 25.32 or fall below 25.12.

[Note: Under exceptional conditions, however, exchange

## INDIA

A  
(exporter  
or  
creditor)

sells bill drawn on B to  
C, for Rs 13,000/  
through a Bank

C  
(importer  
or  
debtor)

sells note and draws bill valued at  
Rs 13,000 on B

sends bill worth Rs 13,000 which is an  
equivalent of £ 1,000 to D, from whom  
he bought woollens worth £ 1,000/-

B  
(importer  
or  
debtor)

D collects £ 1,000 for the bill  
from B, when due,  
through a Bank  
**ENGLAND**

D  
(exporter  
or  
creditor)

may rise above or fall below the specie point For example  
exchange may rise above the specie point when there is a  
difficulty in getting gold bullion for export freely—in that case,  
a very high premium may arise on gold and the exchange may  
go beyond the specie point, or when the country's currency  
consists of depreciated paper currency or inconvertible paper  
currency—in that case also there is a premium on gold  
Again, exchange may fall below the specie point when there is  
a sudden demand for cash and the holders of the bills cannot  
wait—they will sell the bills for cash in that case at a rate  
lower than the specie point This generally happens in times  
of war ]

Now, in the above example the amount of money involved is the same. The amount may be different also. The period of payment of the bill may also not suit both the parties. So in actual practice debtors do not go about finding suitable creditors, nor do creditors go about finding debtors—it would be a very difficult task, indeed, to find out such creditors or debtors. What they do in actual practice is that they take the help of Banks, which are always ready to buy and sell bills of any value, for any period, and at any time. Debtors go to Banks and obtain bills of the exact value which they have to remit; and as the Bank probably keeps deposits with Banks in other countries in order that it may

---

What has been mentioned above happens in the case of two gold-using countries. But if one country is a gold-using country and in the other the currency is silver, a new factor is introduced. All the causes that influence the rate of exchange through the demand and supply of bills will remain in operation the same way as before, but there will be the additional problem of changes in the relative values of gold or silver. The rate of exchange between a gold-using and a silver-using country can be fixed at any time by finding out the relative values of gold and silver, and then by finding out the quantity of pure gold contained in the coin of the gold-using country and the quantity of pure silver contained in the coin of the silver-using country. But here the chances are that the rate of exchange will always be fluctuating and no definite limits can be set to them.

Another case arises when one of the two countries is on a metallic standard while the other is on a paper standard, or when both the countries are on the paper standard. The rate of exchange in these cases will depend entirely on the supply of

be able to draw upon them, it will charge a small sum and will give the Bill (these bills made to order are called *Banker's Drafts*). Creditors also can go and get their bills discounted (Discounting a bill means buying of a bill at a price, after deducting a small amount of commission, and interest. Bank thus pays cash for the bill at the moment, and, after the period of maturity of the bill, it realises it back from the person against whom it is drawn)

**Hundis.**—

Hundis, or Indian bills of exchange, are indigenous credit instruments usually employed for the payment of money within the country itself, i.e., in India.

and demand for bills of exchange, because in the absence of the facility of importing and exporting gold there is no help for the debtors but to discharge their obligations through exchange bills even though they may have to pay more for them.

The problem of exchange is becoming more and more complicated every day, and we find today that gold has practically disappeared from international dealings and almost all countries of the world are on a paper standard. And it is obvious that if the freedom to import and export gold freely does not exist, the rate of exchange must be determined by the supply of and demand for, the bills of exchange, i.e., by the balance of trade.

**The Purchasing Power Parity Theory —**

Most of the countries having gone off the gold standard, the ordinary theory of foreign exchange has become almost inapplicable. *Prof. Gustav Cassel* has offered a new explanation of the new conditions by advancing the Purchasing Power Parity theory which states that the normal rate of exchange between any two countries tends to settle at a point which

The working of a Hundi is exactly the same as that of a bill of exchange, but it is usually drawn up in the Vernacular, Hindi or Mahajani. The Hundis are of two kinds—payable at sight, known as “Darshani Hundis”, and payable after 11, 21, 41, 61 or 121 days, known as “Muddati Hundis”. Hundi system has been popular among Indian merchants for ages; and Hundis are issued in large numbers by creditors or sellers of goods, and discounted by shroffs, bankers and “mahajans.”

### SPECIMEN FORM OF A HUNDI

#### Darshani Hundi

Sri Ganeshai Namah

Sidh sri Aligarh shubhsthane sri patri bhai  
Kharag Sen Jwala Pershad jog likhi Chandausi

---

indicates the relative purchasing power of the money of these countries.

Suppose there are two countries each with a standard coin containing 50 grains of gold. The par of exchange between these two countries will be unity, i.e., one unit of currency of the first country will be equal to one unit of currency of the second country. Then suppose that both countries introduce paper currencies and a paper standard, and suppose the first country has its currency doubled and the second country has its currency increased four-fold. Then according to the quantity theory, the price level of commodities in the first country will be doubled and the price level of commodities in the second country will be increased four-fold. And now the rates of exchange between the currencies of the first country and the second country will be determined by their relative price levels. and one unit of currency of the first country will now be equal to two units of currency of the second country.

In its exact form the theory is as follows:—“The purchasing-power parity between any two currencies is obtained



seti Seth Naram Das Dori Lal ki pu gopal  
 banchna Apprach hundi kita nag ek upke upar  
 kari Rupaiya 2,000 ankan rupaiya do hajai  
 nime rupaiya ek hajai ke doone pure deni. Yahan  
 lakh bhai Ishwar Das Lachhman Das ke Miti  
 Phagun Sudhi Naumi Turant Shah jog rupaiya  
 chalan bazar hundi ki keet thikana lagai chaukas  
 kar dam dena

Hundi likhi Miti Phagun Sudhi Naumi Sam  
 vat 1994

*Dastkhat* • Naram Das Dori Lal

[Drawer Naram Das Dori Lal, Chandausi  
 Drawee Kharag Sen Jwala Pershad Aligarh  
 Payee Ishwar Das Lachhman Das Aligarh]

by multiplying the current index number of prices in the country in whose currency the figure is to be expressed by the pre war par of exchange in order to make the two index numbers of prices comparable and dividing this result by the current index number of the second country. The old rate multiplied by the ratio between degrees of inflation gives the actual rate of exchange

Thus suppose we are considering the case of India and England. Suppose also that the pre war rate of exchange was Re 1 = 16d. Then suppose that at any time the index number in England is 225 while in India it is 175. Under these conditions the purchasing power parity will be as follows.

Re 1 =  $\frac{\text{British Index No} \times 16d}{\text{Indian Index No}}$  or  $\frac{225}{175} \times 16d$  or  $\frac{144d}{7}$  or 20d approximately. (Thus the new rate of exchange will be Re 1 = 20d)

Again, suppose the old parity between England and America was £ = 4 866 dollars. Now if after abandoning the gold standard the price level in England rises to 200 while in America it remains stationary at 100 it means that the new

## Muddati Hundi

Om

Sidh sri Cawnpur shubhsthan sri patri bhai Uttam Chand Prem Chand jog likhi Aligarh se Jwala Prasad Kedari Mal ki ram ram banchna. Appranch Hundi kita ek apke uper kari. Rupaiya 2,000 nime rupaiya ek hajar ke duna pura athe rakha Badri Das Karori Mal pas Miti Chait Sudi 12 se 61 din piche name Dhani Jog Hundi chalan kaldar dije.

Hundi likhi miti Chait Sudi 12 Samvat 1998.

*(On the reverse side)*

nima ka nime rupaiya panch sau ka chauguna pura rupaiya do hajar kar dije.

(2,000/-)

Sri patri bhai Uttam Chand Prem Chand, Cawnpur.

[Drawer : Jwala Prasad Kedari Mal, Aligarh.  
Drawee : Uttam Chand Prem Chand, Cawnpur.  
Payee : Badri Das Karori Mal, Aligarh.]

parity will be •

$$£ 1 = \frac{100}{200} \times 4.866 \text{ dollars}$$

$$= 2.433 \text{ dollars.}$$

Similarly, take the case of England and France.

Mint par or the old equilibrium rate :

	England	France
1913	£ 1	= 25 francs

Index Nos. of prices :

	England	France
1913	100	100
1940	300	600

Purchasing power parity or the new equilibrium rate :

$$£ = 25 \times \frac{600}{300} \text{ francs}$$

$$= 50 \text{ francs.}$$

*Note — Shahjog Hundi* is payable only to a Shah—a respectable merchant of the town where the drawee resides. A holder of such Hundi cannot get its payment himself if he is not a Shah—it must be presented through a Shah. In case the drawee violates the condition he is liable for loss.

*Dhanjog Hundi* is payable only to the payee. It cannot be endorsed. If the drawee pays it to a wrong person, he is liable for loss.

*Dekhanhar Hundi* is payable to the bearer. Anybody presenting it gets the payment and the drawee has little responsibility.

*Farmanjog Hundi* is payable to order, and can be transferred by endorsement.

### **Promissory Note —**

This is another instrument of credit. It is written by a borrower in favour of a creditor.

[This explanation is very convincing, but in actual practice the rate of exchange calculated by means of the purchasing power parity theory does not correspond to the price levels i.e., if the actual rates of exchange as between different countries are examined it is found that the results do not correspond to this theory. This may be due to a number of factors, one of them being that it is very difficult to measure price levels. Index numbers are only an approximation, and cannot be relied upon. The theory also ignores the effect of changes in the balance of trade, which, as we have seen, are very important in determining the course of exchange from time to time.]

### **The Case of India —**

India is a country in which exchange is not allowed to be determined by natural forces, but is artificially regulated by the Government. Her case is, therefore, a special one.

India has got a token coin as standard coin whose value in terms of sterling has been artificially fixed at 1s. 6d. In order that the exchange may not go above or below this rate, the Government of India keeps large reserves and sells its own bills—called the Council Bills and Reverse Council Bills—to

And Governments as much as individuals very often raise funds on such promissory notes.

## SPECIMEN FORM OF A PRONOTE

*Rs.* \_\_\_\_\_ *Calcutta* \_\_\_\_\_ 1945.

*On demand I promise to pay* \_\_\_\_\_

\_\_\_\_\_ *or order the*

*sum of Rupees* \_\_\_\_\_

*for value received* .

Stamp

*x. y. z.*

the public from time to time, It sells them whenever, and in whatever amount, necessary, and thus keeps the exchange "pegged" within narrow limits. For example, if the demand for bills on India at any time becomes so large in England that there is a chance of the rate rising much above 1s. 6d. to a rupee the Government starts selling council bills in large quantities and thus brings down the rate.

The system of Council Bills has now been replaced by the system of purchase of sterling. Whenever the balance of trade is favourable to India and the rupee-sterling exchange threatens to rise, the Government of India prevails upon the Exchange Banks to put their sterling resources in London at their disposal in exchange for money paid to them in India. (These Banks have usually at their disposal funds in London, in the event of India having a favourable balance of trade, which they are anxious to transfer to India by converting it into rupees. The Government of India, on the other hand, has rupees in India which it is anxious to convert into sterling in London to provide funds to the Secretary of State in connection with the Home Charges. The purchase of sterling from these Banks puts the Government in possession of

## Is Credit Capital ?

Credit plays such an important part in the industrial life of today that some people think it is capital. But this view is wrong. A loan from one person to another on the basis of a document cannot increase the capital of a country. Capital remains what it is, inspite of the extension of credit, but the one thing that credit does is that it transfers the use of capital from less to more efficient hands, which results in increased production.

Of course the extension of credit means capital to the person who receives it for on the right created by that he can secure all the things neces

sterling in London and these banks in possession of rupees in India and this is to their mutual advantage) This system permits the Government to stabilise exchange more effectively than before.

*Note* When England went off the gold standard in 1931 but America continued to be on the gold standard the gold value of the rupee came to be determined by what is known as *American Cross Rate*, i.e. the rate of exchange between India and America with reference to the rate between sterling and dollar. Suppose at any moment the rupee sterling ratio is 1s 6d per rupee and the dollar sterling ratio is 4s 6d per dollar. The rupee dollar ratio would be determined by the ratio of 4s 6d divided by 1s 6d i.e. 3 rupees to a dollar. This rate has however been officially pegged at 4.02 dollars to the £ during the present war.

Some Pairs of Exchange between different countries —

Between	OLD	PRE WAR
England and France	£1 = 25 22 francs	£1 = 182 65 francs
Germany	£1 = 20 43 marks	£1 = 12 28 marks
America	£1 = 4 86 dollars	£1 = 4 98 dollars
Japan	£1 = 9 8 yen	£1 = 14 06 yen
India	£1 = 15 rupees	£1 = 14 33 rupees

sary for his productive activities; but this means that another person is deprived of that much of the machines and raw materials existing in the country. Credit is thus not capital, unless it refers to the person to whom the credit is extended. Credit is simply permission to use the capital of others. It is not a factor of production. It is merely a method of production just like exchange and division of labour. If credit really constituted capital, it would be quite possible to double or treble the wealth of any community by having each citizen to lend his estate to his neighbours in exchange for a promissory note.

#### Advantages of Credit.—

(1) Credit has displaced money from ordinary transactions today, and thus *has economised the use*

---

During the present war, however, exchange rates have been controlled everywhere.

#### Sterling Balances.—

A new development in the exchange position of India during the present world war is the large accumulation of sterling balances as a credit item in India's balance of payments. On account of the war purchases made by the British Government in the Indian market, and on account of a favourable balance of trade generally, both of which were paid for in sterling in England, a very large amount of sterling has accumulated in England. [The sterling payments by the British Government and sterling purchases by the Reserve Bank during the war amount to much over a thousand crores.] And these are known as "sterling balances".

A part of this accumulated sterling has already been utilised for effecting repatriation of India's sterling debt. (Repatriation means the substitution of rupee liabilities to residents for

*of gold and silver as means of payment.* It does the work of money without any passing of actual cash immediately, and gold and silver can be devoted to other uses. Suppose it becomes necessary for the Reserve Bank of India to issue one hundred Rupees to meet an increased demand for money in India. If there was no paper money, the Reserve Bank would have to issue hundred rupee coins, and the government would have to buy silver bullion for coinage. But if paper money can be issued, the Reserve Bank will issue paper currency notes worth Rs 100 after keeping gold worth only Rs 40 in the Reserve. Thus the government will have to purchase smaller quantities of silver for coinage. Thus notes secure a great economy in the use of

---

sterling liabilities to non-residents, e.g., India had taken loans in sterling in England formerly, these were paid off out of the sterling balances in England, while rupee securities for the amount were issued to Indians. The rupee debt of the Government of India has, no doubt, increased but the foreign debt in sterling has been altogether wiped off.) But still large sterling balances are lying to the credit of India in England and the manner of their utilization is being hotly debated in the papers these days.

#### Lease-Lend Aid —

This is also a new thing in the sphere of international finance during the present world war. This is an arrangement between England and America by which the former has been receiving goods and services from the latter. It is in the nature of a foreign borrowing though it is not clear in what form the liability of the recipient of this aid will be discharged at the end of the war.

As a part of this scheme India has also been receiving

metallic coins. And similarly, cheques and drafts and bills secure great economy in the use of metal. They make transfer of money possible, without actual cash passing.

(2) *Credit facilitates trade and commerce.* Cheques, bills and Hundis are the common means of payment today. They furnish us with better and more convenient methods of payment of large sums of money inside the country (cheques and Hundis) as well as outside (bills of exchange).

(3) *Credit helps production by rendering capital more productive.* Men with no capital but with real business ability are able to help production by securing the advantages of credit from men who have capital but no ability to manage. For example, banks receive large sums of money lying idle with the rich or the poor and make them productive by lending the same to those who are busy in trade and industry. Besides, the reputation of one man or firm may be made use of for trading by another, and banks can easily transfer the benefit of that reputation in a number of ways.

(4) *The main object of credit, however, is to finance industry and commerce during the time which must necessarily pass between the start of production and the finished article being in the hands of the consumer.* The producer will sell his

---

materials and services from America. On the other hand, she has also been incurring some expenditure on U. S. troops stationed in India—*Reciprocal Lease Lend aid* as it is called. How all these will be adjusted and settled is not yet clear. The Government has been quite reticent on this point.



goods when they have been manufactured the sale will put him in funds. But he needs raw materials for the manufacture of more goods. He cannot pay the price now. Credit comes to his help. Take another case. A person has Rs. 1,000. He manufactures things worth Rs. 1,000, and gets a purchaser, too. Suppose the purchaser lives in Bombay, and it takes 7 days for the goods to reach him, and another 3 days for the money to be received by the manufacturer. Should the manufacturer sit idle during this period? No, he can send the goods through the Bank and get the Hundi discounted at once and thus have money to go on with his business again.

(5) *Credit also acts as a stimulant to the growth of capital.* Banks—known as credit factories—encourage thrift and saving, and discourage hoarding. Wealth lying idle is collected together and employed productively.

(6) *Credit enables individuals to tide over temporary financial difficulties.* “The greater part of industrial organisation today would come to an end, if there were no credit. Manufacturers, agriculturists and consumers do on many occasions require purchasing power to tide over periods of difficulty or to expand their business. Money may not be available, or it may be scarce. Credit would be a substitute and do the work of money.”

### **The Abuses or the Dangers of Credit —**

Credit is however, not an unmixed good. It has its evils.

(1) An over-issue of credit promotes unwise expansion in production leading to "*over-production*." When producers make use of credit for production, they are tempted to spend funds much more recklessly than if the money were their own, and this leads to rash enterprises and careless speculation, with ultimate ruin and suffering to many.

(2) Credit organisation also leads to the formation of monopolies and trusts and combinations which use unfair methods of competition, thus crushing competitors, increasing prices, and exploiting labourers.

(3) An over-issue of credit has also a great effect on prices, which rise abnormally, and on the distribution of wealth among the different classes of people in a country—the few have a great deal, the many very little.

(4) Even when money is borrowed for purposes of consumption it is spent much more blindly than money earned by hard labour. For example, a large part of the rural indebtedness of India is the result of the borrowing of money for consumption purposes.

### QUESTIONS

1. Distinguish between money and credit instruments. What are the advantages of credit to modern commerce and industries?

2. Define a credit instrument. Distinguish between a currency note, a bill of exchange, and a cheque, and say how the development of credit has affected Indian trade and commerce.

3. Distinguish a cheque from a note. Give a specimen of an order cheque for Rs. 50 drawn on the Imperial Bank of India,

Allahabad Bank, by Ram Prasad, payable to the U P Electric Supply Co, Ltd, crossed 'Not Negotiable'

4 (a) What is a Bill of Exchange ? How does it help in the internal or external trade of a country ?

(b) Mohan and sons of Cawnpore sell goods worth Rs 1,000 to Shyam Lal and Brothers of Benares. Please draw a demand bill on behalf of the sellers, payable to Rama & Co, Benares.

5 State what you know about Hundis. Give a specimen form of a Hundi used in your locality and explain its meaning as clearly as you can.

6 "A great feature of modern economic life is the economy in the use of metallic money. Explain this. Show how the economy is possible, and point out the dangers of such a system."

7 Explain how the use of money and cheques saves labour. Is this less or more so in India than in other countries ? ( Read the chapter on Banks and Banking )

8 What is credit ? What are the advantages arising from credit ? What are the dangers ?

---

## CHAPTER 9

### VALUE OF MONEY

#### Value of Money.—

Value of money means its purchasing power--the quantity of goods and services it will buy, e.g., if with one rupee, one can purchase one pair of shoes or one seer of ghee or 10 seers of wheat, we shall say that the value of one rupee is a pair of shoes or a seer of ghee or 10 seers of wheat. This value of the rupee is high or low according as a rupee can get more or less in return. If the rupee at any time can buy 2 pairs of shoes, or 2 seers of ghee or 20 seers of wheat, then its value will be said to have risen ; while if it can buy only half a seer of ghee or 5 seers of wheat, its value will be said to have fallen. In other words, when the prices of commodities fall, the value of money is said to rise ; when the prices of commodities rise, the value of money is said to fall.

*Example* —Wheat was selling a few years ago at Rs. 2/- per maund ; but it sells today at Rs. 10/- per maund ; and we say that the price of wheat has risen. But what about the value of money ? A year ago Rs. 2 could get a maund of wheat, while today we have to pay Rs. 10, i.e., more than Rs. 2, for a maund of wheat. In other words, we get less wheat for Rs. 2 today, then we could get a few years ago. And we can express this by saying that the value of money has fallen.

Thus a rise in prices means a fall in the value of money, and, similarly, a fall in prices means a

rise in the value of money. That is to say, when the value of money rises, the value of commodities falls, and when the value of money falls, the value of commodities rises.

[A general rise or fall of exchange values is impossible. Exchange value expresses the ratio between two things, and, therefore, if the value of one of the two things rises, the value of the other must fall. For example, if the exchange value of one seer of ghee was 10 seers of wheat, and, for certain reasons, the value of wheat is doubled, i.e., one seer of ghee can now get only 5 seers of wheat, then it is evident that the value of ghee has halved while the value of wheat has doubled. What is true of ghee and wheat is true of all goods in general, and we say that *there can be nothing like a general rise or a general fall in values*. That is to say values of all things cannot rise at the same time or fall at the same time—when the value of  $x$  in terms of  $y$  rises, the value of  $y$  in terms of  $x$  must fall, and so on. However, we must remember that *there can be a general rise or a general fall in prices* as the values of all commodities in terms of a third commodity, money, may rise or fall at the same time, the value of money alone going the other way.]

**On what does the value of money depend?**

The value of money like the value of other commodities is determined by the demand for it and the supply of it available.

Now, what constitutes the demand for money? In other words, what for is money demanded?

Money is demanded for the purpose of buying goods and services—it is the general medium of exchange. And whenever any commodity is bought, money payments have to be made. Naturally, the demand for money depends upon the volume of goods bought and sold in the country. The latter in its turn depends upon the total volume of production, which, of course, changes very slowly ( it takes time to alter the volume of production ); and we say that the demand for money remains more or less constant at any given time.

And when the demand for money remains constant, the value of money must be determined by the supply of money. The supply of money means the total quantity of money that is being used to buy goods and services ; and the value of money is high or low according as the quantity of money in circulation is less or more.

#### \*The Quantity Theory of Money.—

Though the value of money like that of any other commodity depends upon demand and supply, as we have seen in the last article economists have a distinct theory about the value of money, known as the *Quantity Theory of Money* \*. Stated in a

---

\*This quantity theory of money in its bald form may hold good in a primitive society under certain conditions—e.g., in a place where there is only one form of money, where every piece of money is exchanged but once, where no hoarding takes place and where money is used for monetary purposes only, etc., etc. But things are not so simple as that.

Let us suppose that I have a rupee with me. I go to the market, purchase some fruit, and pay the rupee to the fruit-vendor. The fruit-vendor takes the same rupee to a cloth merchant

simple form, it says, "*Other things, remaining the same, the purchasing power of money varies inversely as the quantity of money in circulation*" That is to say, if the quantity of money is doubled, prices will become twice as high as before, other things remaining the same, and the value of money, or the purchasing power of money, will consequently become half. Similarly if the quantity of money is halved, other things remaining the same, prices will be one half and the value of money or the purchasing power of money will become double [An increase in the supply of any commodity lowers its value to some extent, and a decrease in supply raises its value to some extent. But there is one thing peculiar about money—its value falls or

---

and buys a piece of cloth with it. The cloth merchant goes to a stationer and purchases some paper for his boy with the same rupee. Thus in the course of the day, a rupee has been used three times to buy goods. It has done the work of three rupees and the quantity of rupees used to purchase goods is to be taken as three and not one. This peculiarity is known as the *velocity of circulation*, and is determined by the number of times each unit of money changes hand on the average in course of a given period. And the total quantity of money is equal to the actual number of coins and notes, multiplied by their average velocity of circulation, and not simply the number of coins and notes.

Similarly, the quantity of money does not depend merely on the number of coins and notes in circulation, but also on the amount of credit money in the country and its velocity of circulation, too.

Again, we have also to consider the volume of exchange transactions in the country. The greater the activity of exchange, or the greater the volume of trade, the greater

risers *exactly* in proportion to the increase or decrease in the supply. That is so because, as we have seen in the last article, the demand for money is more or less constant at any given time. ]

*Example*—Suppose there are 100 rupees and 100 commodities. If all the commodities are bought and sold, and if every rupee is used once, the average price per commodity will be Re. 1. If instead of Rs 100, there are Rs. 200 with which to purchase the same 100 commodities, the average price of each commodity will be raised from Re. 1 to Rs. 2 (double), and the purchasing power of each rupee will be reduced by half.

Money is, indeed, a kind of counter or ticket serving as a medium of exchange. The actual

---

the number of exchanges that have to be effected by the use of money. Thus an increase in the volume and activity of trade increases the demand for money, and tends to cause its value to rise.

However, the theory has been developed by IRVING FISHER so as to fit in with modern conditions, and though it has also been criticised on several points by Professor KEYNES and CANNAN, it holds true as indicating the working of a tendency, and brings together all the principal causes by which the value of money is determined.

FISHER gives a symbolical representation of the theory thus:—

$$P \propto \frac{MV + M'V'}{T}$$

where P = price level of commodities

M = quantity of money in circulation

V = velocity of money in circulation

M' = quantity of credit money in circulation

V' = velocity of circulation of credit money

T = the volume of transactions in the country.

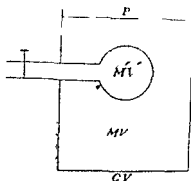


amount of money, provided there is enough to enable it to do its work; does not matter. It is to be assumed that if a community had twice as much money all prices would be twice as high, that if it had only half as much money all prices would be half as high, and so on

### Appreciation and Depreciation —

*Appreciation of money* means a rise in the value of money, or, an increase in its purchasing power, e.g., when a rupee begins to purchase two pairs of shoes, two seers of ghee or 20 seers of wheat, while it formerly purchased only one pair of shoes, one seer of ghee, or 10 seers of wheat. *Appreciation*

This relation of the level of prices to the above factors is very well represented in a diagram by A BAKER in his book CASH AND CREDIT:—



Of a vessel  $CV$  is the base which can be expanded at will,  $MV$  is the fluid in it  $P$  is the level at which  $MV$  stands.  $M'V'$  is air in a bag into which air may be pumped or out of which air may be released. It will be seen that an increase in  $MV$  or  $M'V'$  pushes up  $P$ , while an increase in the base line,  $CV$  brings down  $P$ , so that  $P$  varies directly as  $MV$  and  $M'V'$  and inversely as  $CV$  (or  $T$ )

of money means the same thing as a fall in the general level of prices (of commodities).

*Depreciation* of money means a fall in the value of money, or a decrease in its purchasing power, e. g., when a rupee can purchase only one seer of ghee or 10 seers of wheat, while it formerly purchased two seers of ghee or 20 seers of wheat. Depreciation of money means the same thing as a rise in the general level of prices ( of commodities ).

[Note : Depreciation is not the same as debasement. Money is said to be debased when coins issued contain less than the standard amount of metal ( as a result of wear and tear, clipping, etc. ). Debasement is intentional, depreciation is due to market conditions. ]

### **Inflation and Deflation.—**

These words relate to the amount of currency in a country.

When the supply of money, (including credit money), relatively to the demand, increases to such

† When an expansion or contraction of the currency is due to natural conditions, e.g., an increase in the supply of precious metals, or an increase in the amount of trade, we have what is called *Natural Inflation* (or deflation). But when an expansion or contraction of the currency takes place, on account of the Government issuing an excessive or inadequate amount of inconvertible paper money, or debased metallic money, we have what is called *Artificial Inflation* ( or deflation ).

Inflation is very often brought about by a Government issuing more notes in times of war to have money for purchase of war materials, etc. And a policy of deflation is adopted when there is superfluous currency in the country, and needs to be pumped out of circulation. It is done by cancelling inconvertible paper money or by increasing the volume of production in the country.

an extent that the prices in general rise and the purchasing power of money depreciates or decreases, the currency is said to be *inflated*. [ Inflation is the result of an increase in currency. But it must be distinguished from ordinary expansion of currency which is in response to increase in trade or population. Inflation is the abnormal and deliberate expansion of currency and credit beyond the amount necessary for the needs of trade at a certain time. ]

Similarly, when the supply of money, relatively to the demand, decreases to a point where it becomes in-sufficient to meet the demands of trade, and, therefore, lowers general prices, the currency is said to be *deflated*

*Example*—Inflation in the present world war has been very rapid all over the world. In India also a large amount of paper money has been issued by the Government (about 1100 crores worth of notes are in currency today in place of about 200 crores before the war), and we have inflation and high prices. But now that the war is almost over, we may soon hope to see deflation, and appreciation, and falling prices

### How to measure the value of money ?

#### Measurement of Price Changes—Index Number

The values of all things are measured in terms of money. But we cannot follow this rule with regard to money itself ; for it is absurd to determine the value of money in terms of money itself. But there is really no difficulty. The value of any thing is the amount of other things which can be obtained in exchange for it. Therefore, the value of money can also

**Effect of Changes in Prices. -**

**Rising Prices**—i. e. Depreciation of money due to Inflation.

(1) The rising prices increase the profits of the businessmen and thus stimulate business. Enterprisers score greater and greater profits because, in most cases, the cost of production of commodities does not increase as fast as price rises. There is always a big margin left for the producer or the businessman, and production of goods is stimulated.

---

be found by knowing the amount of other commodities which can be obtained in exchange for it. That is to say, we can measure the purchasing power of money by measuring the changes in the prices of other commodities. For example, if the prices of commodities show a rise in terms of money, we conclude that the purchasing power or the value of money has fallen ; and if the prices of commodities show a fall in terms of money, we conclude that the purchasing power or value of money has risen.

But the difficulty lies in the fact that the prices of all goods do not rise or fall at the same time and by the same amount. In order to obviate this difficulty, we adopt the device of striking out an average of the changes in the prices of different commodities and services in order to find out changes in the value of money. This average of the prices of commodities at a particular period is called the *Index Number*.

Changes in the purchasing power of money are measured by means of this index number. When the index number registers a rise, i.e., when the price level rises, the value of money falls, and, conversely, when the index number falls, the value of money rises. *The value of money thus varies inversely with the changes in the Index Number.* Thus if the price level or the index number rises by 50%, the value of money falls to the same extent, and if the price level falls by 50% the value of money rises also to the same extent.

(2) They benefit the debtors and affect injuriously the interests of the creditors. Suppose the debtor is a wheat grower and he borrowed Rs 100 in 1925 when the price of wheat was Rs 4 a maund—in other words when he received purchasing power equal to 25 maunds of wheat. Suppose again that he pays the amount back in 1945, when the price of wheat is Rs 10 a maund. He now requires only 10 maunds of wheat to sell in order to pay off his creditor. That is to say he gives back only 10 maunds of wheat in return for 25 maunds that he got in 1925, and thus makes a considerable gain. The creditor on the other hand gets less in goods than what he actually paid, for Rs 100 could get more goods in 1925

An index number is constructed in the following way —

We start with a base year i.e. a year in which the conditions are normal and prices of commodities in that year are taken as equal to 100. Let us suppose there are five commodities, wheat, rice, sugar, cotton and iron. The price of one maund of wheat in that year is Rs 5, that of rice is Rs 4, that of sugar is Rs 10, that of cotton Rs 20 and that of iron Rs 20. Let us suppose that next year the prices of wheat, rice and sugar become Rs 6, Rs 6, Rs 8, Rs 10 and Rs 25 respectively. Let us tabulate the figures in this way

	Base year	Another year
Wheat	Rs 5=100	Rs 6=120
Rice	Rs 4=100	Rs 6=150
Sugar	Rs 10=100	Rs 8=80
Cotton	Rs 20=100	Rs 10=50
Iron	Rs 20=100	Rs 25=125
	<u>5)500</u>	<u>5)525</u>
Average	100	106

The index number in the base year is 100 in the other year

when he gave the loan than in 1945 when he got back the loan.

(3) Rising prices mean a general prosperity to the country. Cultivators, industrialists, businessmen of all sorts, and even the Government, have big earnings, and a general optimistic spirit prevails throughout. This optimistic tone in the society, however, very often leads to over-trading, over-production, and over-borrowing by businessmen, which are sometimes attended with serious evils.

(4) Consumers and persons with fixed incomes, like the landlord, the salaried class, etc., suffer because while their incomes remain the same, they are called upon to pay higher prices for articles of consumption. The wage-earning classes also suffer

105. Prices have thus risen, and we conclude that the value or purchasing power of money has fallen.

In this way changes in the index number point out changes in the purchasing power of money. But in constructing an index number we must be careful so as to avoid certain difficulties. For example, we must carefully select the base year, which must not fall in a period of draught, scarcity, or famine or any other abnormal period. We must select a fairly large number (say 50) of representative commodities, i.e., the chief commodities in a country's trade. We must see that the commodities do not change in quality or nature in different years. And we must collect the figures of prices very carefully. For greater accuracy, a commodity which is more important in the consumption or trade of a country should be given a greater weight. For example, if the value of wheat consumed in a country is 10 times the value of sugar the number 100 should be assigned to sugar and 1,000 to wheat, and then

since wages seldom increase in sympathy with, and in proportion to the rise of prices (The wages of labourers generally go up when there is a rise in prices, yet the rise in wages, is not as fast as the rise in prices Wages are the last to rise it is said )

### Falling Prices—the Appreciation of Money

(1) When the prices fall rapidly, the entrepreneur cannot reduce his cost of production as rapidly as the prices fall, so he cannot make profits, and production is discouraged. Entrepreneurs, realising that the prices of things are falling and their profits are disappearing, cut down wages that they give to their employees, some of whom they dismiss. The result is unemployment.

(2) Falling prices injure the debtor class and benefit the creditor class. The creditor gets back more in the form of commodities than he actually

the average should be struck. This sort of average is called the "weighted average. Let us suppose that in the above example, wheat, rice, and sugar are consumed in the ratio of 10, 2, 1, 3, and 1. Then we shall have the following ("weighted") index number table.—

	Base year	Another year
Wheat	$10 \times 100 = 1000$	$10 \times 120 = 1200$
Rice	$2 \times 100 = 200$	$2 \times 150 = 300$
Sugar	$1 \times 100 = 100$	$1 \times 80 = 80$
Cotton	$3 \times 100 = 300$	$3 \times 50 = 150$
Iron	$1 \times 100 = 100$	$1 \times 125 = 125$
	<u>171700</u>	<u>171855</u>
Average	100	109

If we can take all this care, an index number will surely give us a rough idea of changes in the value of money

gave ; for the money which the creditor gets has greater purchasing power than it had when it was lent.

(3) A period of falling prices causes a great hardship to all industrialists, businessmen, and cultivators, and a tone of pessimism prevails which results in a general depression.

(4) Consumers and people with fixed incomes, e.g., landlords and zemindars, and salaried people like clerks, magistrates, wage earners, etc., gain because their salaries bring them increasing quantities of things they want.

Thus both rising and falling prices are bad—they create uncertainty in the business relations of different classes of people in the community, and, therefore, cause so much economic hardship. Steady prices, on the whole, are to be preferred, because they do away with this uncertainty.

#### The use of Index numbers :

(i) By a study of index numbers we can find out how far and in what direction the purchasing power of money is changing, and how the different classes are being affected. We can then increase or decrease the quantity of money in circulation, and thus bring about greater stability of prices.

(ii) We can also find out the rise or fall in the standard of living of particular groups of society by comparing their costs of living with the index numbers in different places and in different periods, and can form this as the basis for adjustment of wages.

(iii) The general economic and industrial development of the country—the trend of trade, capital, profits, etc., etc.—can also be gauged with the help of index numbers ; and these can be of very great help in the economic planning of a country.



Various schemes have been suggested for reducing price changes. Most of them relate to the adjustment of the currency. It is urged that the amount of currency should be regulated to suit the requirements of trade, and should be expanded or contracted as necessary. In other words, currency system should be elastic, and should be such that the currency may expand when trade and business are brisk and contract when times are dull.

### QUESTIONS

1. What is meant by the term "Value of money" ? Why does the value of money differ from one date to another ?
  2. "There can be no general rise in values and no general fall in values." Explain and illustrate.
  3. How does a rise or fall in the value of money affect.  
(a) the producer, (b) the consumer, (c) the investor ?
  - 3 What are index numbers ? What is their use ?
  5. Write short notes on :—  

Inflation,	Deflation.
Appreciation,	Depreciation.
-

## CHAPTER 10

### BANKS AND BANKING

#### What is a Bank.—

We have seen in the previous chapters that banks play an important part in credit transactions. They are the institutions which organise credit—they have been called credit factories. And Banking is the name given to the business of dealing in money and credit, and in the remittance of money from person to person, and from place to place.

A Bank has been defined as "*an establishment where money is received on deposit, to be repaid, and where loans are negotiated, bills discounted and other financial business conducted.*"

Banks are of different varieties and descriptions. There are agricultural banks and industrial banks, commercial banks and exchange banks, co-operative banks and joint-stock banks. But when the word 'Bank' is used without any prefix, a commercial bank is usually meant. We shall deal below with the functions of such banks.

#### Functions of a Modern Bank.—

The functions of an ordinary modern bank are as follows :—

(i) *Banks deal in money and credit by*

(a) receiving deposits :

These deposits may be received by the bank on *Current account*, in which case the bank undertakes to repay any part of it on demand and to do various other services to the depositors, but pays no interest ; or

on *Savings Bank account*, in which case the depositor is allowed to withdraw money only once a week, or so, and is paid a small rate of interest, or again on *Fixed Deposit accounts*, which are withdrawable only on the expiry of the period for which they have been entrusted to the bank, but which earn a higher rate of interest

(b) advancing loans

These loans may be given against personal security, or against property, but they are more often given against commercial bills, shares, and commodities.

The banks receive deposits on low rates of interest and advance the same on higher rates, and the difference between the two rates of interest constitutes their profit. The banks know by experience that only a certain portion of the deposits need be kept in the bank in order to meet the demand from depositors as all of them are not likely to demand money at any one time. Consequently they employ most of the balances in granting loans and advances to the borrowers, and thus serve the purpose of middlemen in bringing the investors, who have money, and businessmen who want money, together. The amount of money which a bank may safely lend varies in different cases, but ordinarily banks keep 20 per cent of their deposits in cash with themselves and the rest they lend (A reduction below this would reduce the Bank's margin of safety while an excess above it would reduce the Bank's margin of profits) How-

ever, if banking is developed sufficiently, the cash percentage may be reduced still further ; as is the practice in advanced countries like England and America.

(ii) *Banks create credit which is said to be the life-blood of trade and industry :*

As we have said above the banks make profit by accepting deposits on low rates of interest and issuing loans on higher rates. But if the banks depended on this profit only, they would get very little, for the difference between the interest rate they charge and the rate they pay is so small. So banks create credit, and that is the chief source of their profits. Let us see how.

Suppose a bank keeps 20 per cent of its deposits as cash with itself, and lends the rest. If the deposits with the bank are worth Rs. 1,000, the bank keeps Rs. 200 as cash reserve and advances Rs. 800 to its customers in the form of loans. Now the sum of Rs. 800 borrowed by a person must be finally paid to some person or persons. These persons will deposit the amount with their banks. These banks on finding that their deposits have increased, also lend 80 per cent of these and keep only 20 per cent as cash reserve. These loans again appear as deposits in banks. And thus the original deposit\* of Rs. 1,000 becomes the basis of the crea-

---

This theory has, however, been criticised by CANNAN and others. In their opinion, the initiative in the creation of credit does not lie with the bankers, but with the depositors. What happens is that the depositors do not withdraw the greater portion of their deposits, and so the bank is able to advance loans. It is not loans which make deposits. Rather

tion of credit to the extent of many times this sum. Many accounts are opened in different banks, trade and industry flourish in the country, and the cheque system develops to the utmost. Again, when a bank issues notes it has not to keep full metallic reserve against all the notes issued. It generally issues notes keeping a certain percentage of metallic reserve only, say 40% to 50%, and in this way also it creates credit.

(iii) *Banks economise money, and help trade and industry by*

(a) *creation of current deposits and the introduction of the cheque system.* People deposit money in the current account, and whenever they want to make use of this money, for making payments, they issue cheques which take the place of metallic money, and paper money, and become the common medium of exchange in the country.

The bank also serves, by the way, as a clearing house to its customers. If the customers of a bank owe money to each other, they draw cheques on the banks, and

---

it is the unwithdrawn deposits that are loaned. Here is an interesting example. Suppose there are a hundred guests in an evening party, each arriving with a cloak, which he deposits with the cloak room servant. It is known that the party will not break up before 10 p.m. In case some guests depart earlier, the servant keeps 20 cloaks in stock, and loans out the remaining 80 to be returned a little earlier than 10 p.m. This does not mean that the servant is hiring the cloaks created 80 cloaks. And similarly the banks cannot be said to create credit.

these banks transfer the stated amount from one account to another, without any actual passing of cash.

(b) *discounting of bills*—An ordinary bank cannot grant loans for a long time because money may be demanded by the depositors at any time. So it makes short period loans by discounting promissory notes and bills of exchange or Hundis, and thus helps trade by providing credit. [ Discounting means making cash payment for the bill after deducting a small amount of commission, and the interest at the time of purchase, and then realising the amount of the bill back from the person against whom it is drawn on the date on which it falls due. ]

(c) *transference of money* from one part of the country to another cheaply and safely by means of drafts and Hundis ( or bills of exchange ).

(d) *issue of notes* ( where permitted ). In India the Reserve Bank alone issues notes.

(iv) *Banks discourage the habit of hoarding.* They give interest on the money deposited with them, and this induces people to save. The result is that wealth which would otherwise have remained idle reaches the banks, and the banks pass it on to the people who can make use of it, i.e., to those who have business ability, but have no money of their own to invest. Thus banks bring the borrower and the lender together, and provide a connecting link between them.

(v) *Banks act as safe custodians* of valuables, jewels, ornaments, etc., and act as agents to their clients for the purpose of buying gold and silver, collecting dividend warrants and pensions, paying insurance premia, etc etc.

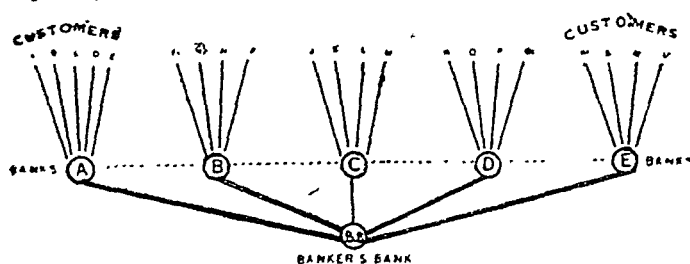
### **Clearing Houses —**

A bank has a large number of customers who keep their accounts with it. These customers draw cheques upon it whenever they want to withdraw money from it or make payments to others. They also, in the course of their business, receive a number of cheques from others in payment of their dues. Thus it often happens that different customers of the same bank draw cheques in favour of one another, and as they all have their current accounts with the bank, and many of them do not want money at once, these cheques are not cashed but are credited to their accounts. The bank has only to make a change in book credits and book debits, and the use of money is economised, for no money actually changes hands.

Suppose now that there are several banks, and some people have their accounts with one bank, and some with other banks. They will draw cheques on their banks and receive cheques on other banks. How will the accounts be adjusted now, so that much money may not have to pass unnecessarily from one bank to another? It is done by all these banks having their accounts with a Bankers' Bank or a Clearing house, where the representatives of different banks meet every day and adjust the mutual accounts between them by mere changes in

entries in the account of the different banks with the Bankers' Bank or the Clearing-house. Thus even here the accounts are settled without money actually changing hands.

This process of clearing is very simple. All cheques received by a bank from its customers are examined by the bank and a list of money to be received from other banks is made out. This list is sent to the Clearing House or the Bankers' Bank, and the amount payable by each bank is noted by its representative there. After all the cheques are received and delivered, the balances are struck and each bank knows what it has to receive from and pay to each of the other banks. The differences are made up, and each bank is then accordingly debited or credited with the balance it has to pay or receive in its account with the Clearing Bank—i.e., the balances are not actually paid, only the amounts due to different banks are credited to their accounts and their liabilities deducted from their accounts every day.



The clearing may be done either through a central bank, which acts as a Bankers' Bank, or by the representatives of all the banks meeting in a special office or Clearing House. In India the



work of the Clearing House is carried on for approved banking institutions at about a dozen big towns in the country at the offices of the Imperial Bank, or of the Reserve Bank now, where it has a branch. All the member banks keep their balances there. Thus, *"a clearing house is a central organisation of banks where the mutual obligations of the constituent members (banks) are cancelled, and the actual passing of metallic money is very much reduced"*

By this system of the clearing house, we see then, the use of metallic money is so much reduced that of the total payments made by cheques in India only about four or five per cent has to be made by transfer of money balances between the banks. But the fact remains that in India the use of cheques is confined only to big cities like Bombay, Calcutta, and Ahmedabad, and people have not what is known as the banking habit. In countries like England and America, where banking habit is almost universal most of the payments are made by means of cheques, and probably not more than one per cent of the total amount of cheques drawn on banks is settled in cash, the rest being settled by mere book entries. Evidently this means a great economy in the use of money, and a great saving of labour.

#### Balance sheet of a Bank —

Banks are ordinarily joint stock institutions, with huge capital subscribed by shareholders. They receive large deposits from private and public bodies

and individuals; and the amount they invest either in Government securities or private loans is very large, indeed.

These joint stock banks are required to publish half-yearly a statement of account, known as a "balance-sheet", for public information. A typical **balance sheet** has two columns liabilities and assets. The "Liabilities" side includes the amounts of money which the bank owes to its shareholders, depositors and others. The "Assets" side gives details of sums which other people owe to the bank and over which the bank has a claim. A rough specimen of such an account is shown here :

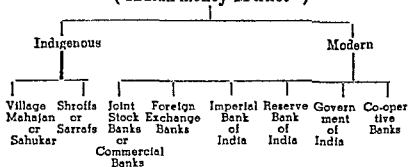
<i>Liabilities</i>		<i>Assets</i>	
Paid-up Capital	5 Crores	Securities and investments	25 Crores
Reserve fund	5 „	Loans and advances given	15 „
Deposits with the Bank	50 „	Bills discounted (i.e., money advanced against bills)	5 „
Bills issued and loans taken	4½ „	Dead-stock and premises (i.e., building, furniture, stationery, etc.)	2 „
*Profit and Loss a/c	½ crore	Cash in hand and with the Reserve Bank of India.	18 „
<hr/> 65 crores <hr/>		<hr/> 65 crores <hr/>	

Statement  
of  
Profit and Loss Account

<i>Dr</i>	By	<i>Cr</i>
To		
Interest (paid on deposits, etc)	} 1½ crores	Interest (received on loans, etc.)
Establishment charges (salaries of clerks, etc)		Discount,
Rent, Taxes, etc,		Commission.
Stamps and stationery		
Depreciation		
Net profit	<u>½ crores</u>	
	2 crores	<u>2 crores</u>

Different types of Banks in India —

( Indian money Market\* )



\* Money market means the market where money and instruments of credit of every description are dealt in. It is a market where the demand for capital and credit establishes contact with their supply. It covers the operations of all the bankers, brokers, discount houses and financiers, etc., who transact business in money and credit.

**(a) Indigenous Banking.—**

Before the establishment of modern banking in India, there were in this country numerous banking firms and bankers who carried on their business extensively. They used to receive money on deposits, gave loans and issued drafts or Hundis. There were also numerous small bankers who took money on deposits, allowed interest on them and gave loans. This kind of business is done extensively today in the villages and small towns, even in big ones all over India ; particularly in those parts where modern banking is still unknown. They lend money to merchants and cultivators and thus finance internal trade. In some cases they also combine some kind of trade with banking. They are, indeed, the most remarkable features of India's industrial activity. Their number is very large—almost every village has its own money-lenders,—and they are the mainstay of the agriculturists. Small traders and producers who, either because of their ignorance or financial inability, are unable to borrow money from the Bank, always look up to these indigenous institutions for help. The bankers also, taking advantage of the ignorance or inability of their customers, charge a very high rate of interest.

*The bigger ones of these are known as Sarrafs or Shroffs and the smaller ones as Mahajans or Sahukars. The former sometimes finance the latter, and also act as middlemen between businessmen and banks—a trader can obtain accomodation from them more easily than he can from banks,*

and when a sarraf has given away a great part of his own funds on Hundis, etc., he can obtain loans from banks on the security of these hundis. Through the Sarrafs, therefore, most of our banks finance industrialists and traders in this country. The big Sarrafs also do the work of keeping valuables in safe custody, giving of loans to reliable persons and selling of Hundis.

Apart from money-lending, *the Mahajan or the Sahukar, also known as the village money-lender, performs several other functions, e.g., he sells the daily necessary supplies such as cloth, grocery, etc.; to some extent, he buys the village produce for sale outside and sometimes acts as a commission agent for marketing his client's produce. His working capital is partly his own and partly borrowed from the city money-lenders. He lends on all sorts of securities—on the security of property, of cattle or standing crops, and on personal security. He finances his client in all his undertakings and lends money for every affair in life, for birth, for death, or for marriage in the family.*

The investigations of the Agricultural Commission and the Banking Enquiry Committee have proved beyond doubt that the village Mahajan is an indispensable factor in the economic life of the village. Some people consider him a "Shylock" and a blood-sucker, for he charges a high rate of interest. But he is not such an evil as he is generally supposed to be. His importance lies in the fact that he lends money against almost any security, at any time or place. It is, therefore, unfor-

fortunate that his business has been declining for sometime past. His position should be strengthened. He is, indeed, an indispensable link between the Indian money market and the vast trading community.

There are, however, differences in detail between the functions of these Mahajans and Sarrafs—that is, the indigenous bankers—and those of a modern bank:—

(1) While, banks receive large deposits, the indigenous banker raises a very small amount of capital from deposits.

(2) While banks deal in both internal and external bills of exchange, and render service to commerce and industry in so many other ways, the indigenous banker generally only lends money, and is simply a money-lender, not a banker. There are only a few *Sarrafs* in the commercial towns who also carry on business in *Hundis*.

(3) While banks grant loans only on proper security, and charge low rates of interest, indigenous bankers lend on insufficient or almost no security, and, therefore, charge very high rates of interest.

(4) While banks confine themselves to activities in the banking line, indigenous bankers carry on a variety of functions apart from the banking business—they combine banking with trade and commerce, acting as grain-dealers, commission-agents, brokers, traders, and industrialists.

The indigenous bankers can certainly be made more useful by adopting up-to-date methods of

banking, like keeping proper accounts, use of cheques, publishing of balance-sheets, etc., etc., and by being combined into a sort of a co-operative bank, which would discount the Hundis of members, and re-discount the same with the Reserve Bank, or by amalgamating their business with the joint stock banks. A bright future yet awaits them.

(b) Joint Stock Banks.—

or

### Commercial Banks

These are joint stock companies formed for the purpose of carrying on banking business. They are almost all of them of recent origin, and their growth has taken place during the last 30 years. They had made rapid progress before the last European war but as they were not run on sound lines, there were many failures in 1913-14—due to insufficient reserves, bad management, declaration of large dividends to shareholders, participation in non-banking and speculative activities, etc.—and again in 1932. During the present world war the number of such banks has multiplied very much again. The most important of these Banks are the Central Bank 'Ld.', the Allahabad Bank 'Ld.', the Bank of India, 'Ld.', the Punjab National Bank 'Ld.', and the Bank of Baroda 'Ld.'

The business of the Joint Stock banks consists in receiving deposits of all kinds—current, fixed and savings—and in advancing loans against commodities, shares, Hundis, promissory notes and immovable property in towns, and against grain, cotton, piece-goods, etc., in the villages. They transfer

money from one place to another and thus help trade and commerce. [ A merchant at Agra goes to the branch of the Allahabad Bank there, and sells a hundi on Bombay. The Bank pays the amount of the hundi (less discount, etc.) to the merchant at Agra and sends the hundi to its Bombay Branch, which realises the amount of hundi from the merchant on whom it was drawn, and credits it to the account of the Agra Branch. Thus money is transferred from Agra to Bombay. By a reverse process it can be transferred again from Bombay to Agra. ] They also buy and sell shares on behalf of their clients, keep there valuables for safe custody, etc., etc. They are also known as Commercial Banks, because they finance trade and commerce in the country.

#### (c) Foreign Exchange Banks.—

These banks are branch agencies of banks having their head offices in London, or in some other foreign town. Their chief business is to buy and sell bills of exchange, and thus finance the foreign trade of India, which the purely Indian banks are unable to do because they have no branches outside India. [ Suppose a merchant in India sells cotton to a merchant in Liverpool. The Indian merchant draws on the Liverpool merchant in sterling at sight and hands the bill and the documents to the branch of an Exchange Bank in India for collection. The latter forwards the bill to its branch in London, and this branch of the bank presents it to the Liverpool buyer, gets the payment of the bill, and then delivers the documents.



The cash released is credited to the account of the Indian Branch in London and thus the balance of the Indian Branch in London is increased. By a reverse process, e.g. by the Indian branch selling bills and drafts to importers in India instead of purchasing them from the exporters in India, this money can be transferred to India. And in this way foreign trade flourishes.] But now the exchange banks take an active part in financing trade and commerce inside the country also at places where their branches are situated. Thus in addition to their chief business of exchange bills they carry on all ordinary banking business, including loans, deposits, purchase and sale of gold and silver, drafts and Hundis, etc., etc.

There are a large number of Exchange Banks with their offices in India. All those important countries which are engaged in foreign trade with India, have their banking establishments in Bombay or Calcutta. At present the number of such banks is 18, the important ones being the Chartered Bank, the Yokohama Specie Bank, the Hongkong and Shanghai Bank, the National Bank of India, and the P & O. Banking Corporation.

#### (d) **The Imperial Bank of India -**

It was formed in 1921 and till 1935 it used to be a semi government bank. It served as the bankers of the Government and side by side it also did all sorts of banking business for the public with certain limitations and restrictions. It did not keep all the reserves of the Government and could not issue notes, but it did hold a large amount of

government balances and managed the Public Debt ( i.e., the loans taken by the Government from the people ). With the formation of the Reserve Bank of India the position of the Imperial Bank has almost become the same as that of a joint stock bank with the right to be the sole-agent of the Reserve Bank in all places of British India where there is no branch of the Reserve Bank; but the Imperial Bank has rendered very useful service to the country. It has started 161 branches, many of them in places where banking facilities were practically unknown before.

**(e) The Reserve Bank of India\*.—**

This came into existence in April 1935. It is a shareholders' bank and the general superintendence and direction of affairs, and the business of the bank are entrusted to a central board consis-

**\*Central Banks.—**

Almost every country has a central Bank. The central bank for India is the Reserve Bank of India.

The main function of the central bank is to regulate the volume of credit and currency in the country in such a way that there may neither be an excess nor shortage of them, and steady prices of commodities may prevail in the country (rising prices and falling prices both are harmful to one or the other section of the population.)

The Central Bank regulates the volume of credit and currency in the country, pumping in more money when the market is dry of cash, and pumping out when there is a surfeit of credit; and in order that it may be able to do so, it generally has the monopoly of note-issue ( i.e. it is the only note-issuing bank in the country ), and acts as a Bankers' Bank ( i.e., all the other Banks in the country have to keep a portion of their reserves with the Central Bank ). Because it has the monopoly

ting of 16 members. Of these the Governor, 2 Deputy Governors, 4 Directors and one Government official are appointed by the Governor-General and 8 Directors are appointed by the shareholders. The capital is Rupees 5 crores. It has at present 5 local head offices at Bombay, Calcutta, Madras, Rangoon and Delhi. It has also a branch in London.

The functions of the Bank are laid down as follows -

- ( 1 ) It will issue currency notes which were so far issued by the Government, will keep and maintain the Reserves, and manage the currency system.

of note issue, it can supply currency when required, and withdraw it from circulation when so needed, and because it is a Bankers' Bank it can control the credit in the country by the manipulation of the bank rate, and the purchase and sale of bills and securities in the open market known as the open market operations. Let us see how this is brought about.

(1) *Manipulation of the Bank Rate* If the Central Bank finds that a reduction in the volume of currency is necessary in order to bring about a fall in prices it would raise its rate for discounting bills, i.e. the bank rate, and the other banks will also have to do the same. This will discourage borrowing and thus reduce the volume of currency in circulation. Side by side with this the Central Bank will raise the rate of interest, and will thus increase its deposits. In this case also the other banks, will have to follow its lead. If, on the other hand, the Central Bank finds that the money market is tight, i.e. if it feels the need for increasing the amount of currency in circulation and thus bring about a rise in prices, it would lower both the discount rate ( the bank rate ), and the rate of interest. This would make borrowing easier so that

- (ii) It will sell and purchase bills on India or on London with a view to maintain the exchange value of the rupee at 1s. 6d.
- (iii) It will serve as bankers for the Government of India, buy and sell gold and silver for them, carry out their exchange remittance, and the banking operations including the management of the public debt (i.e., loans taken by the Government).

For fifteen years yet, however, the Imperial Bank of India will continue to act as the sole agent of the Reserve Bank and will manage the Government Treasury balances at its up-country branches.

---

more money would come into circulation, and less deposits would be made in the Banks.

(ii) *Open Market Operations.* By open market operations we mean the expansion or contraction of credit through the purchase or sale of securities in the open market. For example, if the Central Bank wants to increase the volume of credit, it will buy bills and securities in the open market—those who receive money by selling these bills or securities, deposit it in their banks, and thus enable the banks to create more credit. If, on the other hand, the Central Bank wants to decrease the volume of credit, it will sell such bills or securities in the open market—those who purchase such bills or securities will pay to the Central Bank by withdrawing money from their own banks, thus restricting the credit operations by these banks. [This method has an advantage over the method of controlling credit by manipulating the bank rate. The latter method makes money dear for industry and trade and causes great hardship to business-men who want to borrow money for their commercial needs. This disadvantage is not present in the open market operations].

- (iv) It will serve as the Bankers' Bank Every recognised bank will be required to keep balances with the Reserve Bank amounting to not less than 5% of its demand liabilities and 2% of its time liabilities This is done to enable the Reserve Bank to centralise the Reserves of the country It will also accept money on deposit without interest and give loans and advances on certain terms to Governments and municipalities, etc It will not, however, engage in trade, or advance money directly to the public, or allow interest on deposits That is to say, it will control and not compete with the commercial banks
- (v) It will start a special Agricultural Department whose main function will be to study all questions of agricultural credit and help the Government to solve them
- (vi) It will organise the Indian money market and strengthen the Indian banking system
- (vii) It will publish weekly the accounts of both the Issue and Banking departments, and will, from time to time, make public the standard rate at which it is prepared to buy or re discount bills of exchange, etc

---

#### Bank Rate —

The Bank Rate is the advertised rate of Discount of the Central Bank of a country The Bank of England rate refers to the rate at which the Bank is prepared to advance loans on the basis of government securities or discount or re discount first class trade bills The Reserve Bank rate refers to the rate

With the formation of the Reserve Bank, it was hoped that India's money market would be free from its old defects. For example, on account of the wide extent of the country and the very little mobility of capital in the country, different rates of interest prevailed in different areas, and there was no co-ordination altogether, e.g., sometimes there was a great surplus of funds at one centre and great scarcity at another, interest was higher at one centre than at another, etc., etc. and the Reserve Bank was expected to bring about a co-ordination between the different centres.

Then we had so far a dual control of currency and credit in the country. The currency had been controlled by the Government and credit by the Imperial Bank; and this dual control had its defects. It was hoped that the Reserve Bank, to which both the functions were now delegated and which was in a position to centralise the reserves of the country and economise their use, would manage currency and credit both in a better way--i.e., it would not only be able to regulate the currency, it would also be able to make the currency balances available to the market and do away with seasonal monetary stringency, high money rates, and the very poor use of bills and hundis.

---

at which it will discount the trade bills of the different members banks. In an organised money market, like that of London, the rate of interest in the country generally follows the Bank rate. The Bank Rate is known as the Discount Rate in Europe and Money Rate in America.

Besides, it was expected that it would afford much needed relief to trade and industry and more particularly to agriculture. The greatest hopes of the country lay in its being able to find out a suitable way of linking the large body of the indigenous bankers the Marwaris or Sahukars, with the organised banking system.

These expectations have, however, been only partly fulfilled. For example, the bank has been successful in removing the gap between the rates of interest in the busy and the dull season and between different periods and places. It has been able to keep the Bank Rate and the rupee—sterling rate of exchange steady. It has also been able to control the currency of the country and, to some extent, the deposits with the banks in the country. And here and there it has been able to help the banks to escape failure. But it has not an effective control yet on banking and credit in the country. Nor has it been able to do much to improve the machinery of agricultural credit or to bring the indigenous bankers under its fold.

#### (f) **The Government of India —**

The Government of India is also an important constituent member of the Indian money market. The Government transacts banking business in several ways. It attracts deposits from the public in the Post Office Savings Banks, issues Cash Certificates to the public, and helps the remittance of funds, by taking deposits from the public in one treasury, and by making payment from another treasury on the presentation of the *Chalan*. It

also takes loans from time to time, and issues treasury bills, etc. etc.

**(g) † Co-operative Banks.—**

These banks are established under the Co-operative Societies Act. They are meant to save the agriculturists from the clutches of the money-lender. They lend money at low rates of interest and have a great educative value. These are commonly considered under three classes :

Co-operative Credit Societies.

known as Primary Societies ;

Co-operative Central Banks ;

Co-operative Provincial Banks.

The Primary Societies are associations of persons of small and limited means who organise for mutual help. They raise their funds (1) from among their

---

**† Treasury Bill.—**

It is a device for taking loans from the people by the Government of India. When the Government wants to take loans for short periods, generally for three months, it sells treasury bills in the money market at a certain rate of interest. This loan is required to meet the current expenditure of the Government, because the Government does not get the revenue from the people all at once, but periodically. When there is little balance in the treasury from out of the taxes received the Government is in a position to clear the former debts contracted by means of the sale of Treasury Bills.

This system was instituted in India in the year 1917 for meeting Government's disbursements during the war. It was retained after the war because of its convenience. This system affords a good opportunity to the people for securing short-period investment, but its main defect lies in the fact that it competes with the money market in selling short-period investments, and thus injures it very much.



members (entrance fee of members, deposits by members and share capital, if any), (2) from outside public (deposits and loans from them), and (3) from the co-operative central banks to which they are affiliated but they lend money to their members only. The management of these societies is

#### † Co-operative Movement in India —

India is a country of farmers. They require money to purchase seed, manure, ploughs, bullocks, etc., to pay for hired labour, for irrigation and for many other purposes. But they are very poor. Very few can meet all these expenses from their own capital. They are consequently forced to borrow and fall into debt which they cannot easily repay (the rural debt of British India is estimated at over 900 crores). They thus fall into the clutches of the money lender who charges very high rates of interest. They have to borrow for other reasons too. Their earnings are realised at the harvest time while they have to spend throughout the year. Besides their earnings are very uncertain. The monsoon may fail, rains may come at the wrong time, or a river may rise and sweep away the harvest, lambs and herd. The Indian artisans also, whether in town or in country, are ordinarily poor, and almost always in need of money, while they borrow on the "Ugahi" or "Kist" system—here the rate of interest works out at 60 to 70 % per annum. For all these reasons, a system that provided cheap credit and did away with the money-lender was greatly needed in the country.

Similar conditions had prevailed in Germany in the middle of the 19th century, and the peasantry had fallen heavily in debt to the money lenders. The thing that saved their position there was the co-operative movement advocated by two German philanthropists—Raiffeisen and Schulze-Deutsche. The former came out with his plan to start co-operative credit societies for the farmers in the rural areas, and the latter with his plan to start similar societies, on a little different line, for the purpose of helping petty shop keepers and artisans residing in

entrusted to two bodies, namely, a general committee consisting of all the members and a managing committee of 5 to 9 members chosen from among the members of the former body. The liability of the members is unlimited unless permission has been obtained from the Government.

---

owns. Many co-operative credit societies were formed in the country, and the condition of the people considerably improved.

To profit by this example of Germany, Sir Nicholson was appointed by the Madras Government in 1882 to enquire into and report on the possibilities of such a movement in India. He summed up his report in two words "*Find Raiffeisen*", i.e., open co-operative credit societies on the lines of the German societies formed by Raiffeisen; and many societies were started in Madras, the U. P., the Punjab and Bengal. In 1901 again a committee was appointed by the Government of India for the same purpose and the result of this was the passing of the Co-operative Societies Act of 1904. Later on in 1912, another act was passed, and this act was extended to other forms of co-operation, having for their object not only the provision of credit, but also of production, consumption and distribution. Then the Maclagan Committee on Co-operation in 1914, the Royal Commission on Agriculture in 1928, and the Whitley Labour Commission and the Banking Enquiry Committee a few years later, all recommended a widespread extension of the movement. In fact it is agreed on all hands today that *the greatest hope of agricultural India lies in Co-operation*, and the movement has made some progress, too, in the country; but there is an infinite scope for its development, and much remains to be done still.

**What is a Co-operative Society.—**

It is an organisation of 10 or more persons residing in the same village, or belonging to the same [caste, formed with the object of enabling the members to get loans at a low rate, or some other object of helping the poor agriculturist or artisan.

for exemption from this rule. And the working of societies is subject to minute supervision and audit by the Registrar of co operative societies

---

### The theory and ideal of Co-operation —

The theory of co-operation is that persons can, by association with others, obtain many advantages, which could not be obtained by them in their individual capacities. For example a society can borrow money easily in a single transaction, as lenders will consider the credit of the society as a whole, instead of the credit of each separate member, and then it can distribute it among its members. Similarly, a society can buy and sell on better terms than an individual can, and all the members of the society benefit by it. It is also a training ground for the members in mutual help and co operation, self-help and self-reliance, thrift and business-like habits. The main principle of co operation, however, is the principle of 'each for all, and all for each'. The liability of a society is generally unlimited, that is, each member is individually liable to the extent of his whole property to pay the creditors of the society. In other words, each member is liable for the whole loss of the society. Naturally every member is interested in every other member and is careful in selecting the members, in giving loans to them, in demanding repayment of the loans from them, etc, etc. The solvency of the society is automatically guaranteed, at the same time that the members have a lesson in mutual self help and co-operation.

### Co operative Credit Societies —

Of all forms of co operation, co-operative credit societies, that is, societies formed with the object of providing credit or loans, are by far the most important.

According to the present law in India, co operative credit societies may be of two kinds—limited liability societies and unlimited liability societies. Generally speaking, those societies which are formed for the artisans in towns are limited liability societies, while those that are formed in the villages for the agricultural classes are unlimited liability societies. Other

The co-operative central banks, in their turn, are federations of co-operative credit societies in specified areas and are usually located in an important town of each district. They are formed by the

---

points of difference between the two types of societies are that in the case of the latter type, the office bearers are honorary and no dividends are paid, almost all the profits being kept in the form of a permanent reserve fund, while in the case of the former type, there may be shares and dividends, etc.

Advantages arising from them.—

*Economic :—*

(1) The rate of interest charged by co-operative credit societies is very much lower than that charged by Sahukars. There has been a considerable reduction in the indebtedness of the farmer, as a result of the co-operative credit societies.

(2) Thrift is encouraged. Hoarded money comes out and is made available to the agriculturist.

(3) Improvements in agriculture are made possible in a number of ways.

*Educational and Social :*

(1) Members learn the lessons of mutual self-help and co-operation.

(2) They also learn to keep accounts, to sign promotes and to read, and thus they get a little business training, and the spirit of citizenship gradually develops.

(3) Extravagance, such as expenses on marriage and other ceremonies, drunkenness, gambling, and litigation are discouraged.

**Defects**

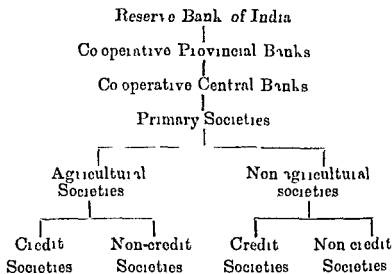
Defects are in the working not in co-operation.

1. Members do not understand the basic principles of co-operation ; and the co-operative spirit is absent, due to illiteracy.

2. They do not observe the principles of punctuality, and follow the policy of drift,

union of a number of primary societies. In addition to their own capital they collect money from the public in the form of deposits, and from the provincial banks, for use by the societies. They advance money to the societies within their jurisdiction.

The co-operative provincial banks are likewise federations of central banks of a province. They obtain money mainly from deposits from the public and from the Imperial Bank—now from the Reserve Bank of India, also from the Provincial Government. They have also a large capital. They finance the co-operative central banks in the towns and act as *balancing* centres to them.



4 It is difficult to find an honorary manager and suitable staff, and regular audit and supervision are lacking.

3 Clever members of the society, and the *Surpunch* or the Secretary, very often misappropriate funds, and exercise favouritism in the distribution of loans.

**(h) Land Mortgage Banks.—**

The co-operative societies give loans for short periods only, while the agriculturists require money for long periods also. This problem of long term credit is attempted to be solved through Land Mortgage Banks, which in India are organised on the co-operative principle—they accept land as security for loans, and the loans that they advance to the cultivators are to be repaid by instalments running over long periods, say 15 or more years. These banks require more efficient manage-

---

5. There is excessive officialism or red-tapism, and much time and labour is wasted in getting loans, etc.

**Foundation Principles (Experiences).—**

1. A society should be registered only when the registrar is convinced that the members understand the meaning of co-operation.

2. Membership should not be large, i.e., the size of the societies should be small. If the number of members in a society becomes very large, its efficient management comes down. On the other hand, if the number is very small, the management becomes prohibitively heavy. As far as possible, the society should be local so that members may know the pecuniary circumstances of one another.

3. Proper security and vigilance should be exercised before advancing loans, and punctuality in repayment of loans should be insisted upon.

4. The members should not be encouraged to spend too much on social and religious expenses, but loans should be permitted for clearing their old loans and for marriages and other ceremonies.

5. The management should be democratic. Each member should have one vote.

6. Funds should be kept in a realisable form.

ment, Government help, etc, etc, and cannot be successful without these. A few such banks have been started in India in the Punjab, Madras, Bombay, and Assam, but they are not sufficiently large in number or in size to meet fully the requirements of the Indian agriculturists.

It is believed that separate commercial Land Mortgage Banks, run more or less on the joint stock system, are better suited for long term loans, and it is for the Government to help the development of such banks for the benefit of the agriculturists and land lords both.

The object of such Land Mortgage Banks would be to grant loans for the liquidation of old debts to introduce improvements in land and in

---

7 Separate land mortgage banks should be started for long period loans

8 Consolidation of the movement is more important than its expansion

Other forms of Co operation —

Besides providing cheap credit, co operative societies can help agriculture in many other ways and we have the following other forms of co operation in India —

(a) Co operative Sale and Purchases Societies, which enable the members to do away with the middle man and to secure for themselves the profits of marketing which at present go to the money-lender, through whom all purchases of raw materials and sales of produce are effected. Co operative marketing is very important for an agricultural country like India.

(b) Consolidation of Holdings Societies, which enable the members to increase the size of their holdings by mutual agreement, and exchange of plots. Such societies have been formed in the Punjab and have proved very successful, of course with the help of the Government.

methods of cultivation, and also to enable the purchase of land in special cases. The loans shall be for periods ranging from 5 to 20 years, and their repayment shall be by a system of equated payments. The working capital of the banks shall be derived from two sources--share capital and debentures; while short term deposits shall not be sought after. But unless the Government takes the initiative, and begins to purchase debentures, or guarantee interest on them, or take some other similar steps, there can be no hope of having successful banks of this type, though their importance is so great in an agricultural country like India. We have no such banks in the country so far.

---

(c) Co-operative grain banks, which enable the members to hold out their produce during harvest time when prices are low and to sell it when the prices go up, and which act as a store of grain which is lent out to the members for seed-grain and for purposes of maintenance during the periods of scarcity. They are similar in operation to the credit society, the only difference being that while the credit societies lend money, these lend grain. Members can also keep their stocks there to be sold by the bank, and, in the meantime, draw money from the bank to make their payments for consumption, for debts to money-lenders, or for land revenue to the Government, &c. They have been tried in Bengal mostly, and have been found very useful, \*

(d) Co-operative Cattle-breeding Societies, which help the farmer to have better breed of cattle, and Co-operative Cattle Insurance Societies which insure him against the risks of the death of his cattle.

(e) Co-operative Producers' Societies for cottage workers, which have been started among weavers and have led to the introduction of improved looms and methods of work; and



**(i) Industrial Banks —**

Industries require both long term and short-term loans. They want long term loans to meet initial expenditure like the construction of factory, purchase of machinery, etc. They want short term loans, for meeting current expenses of the industry, as purchase of raw materials, payment of wages, etc. Industrial Banks are specially meant for the former purpose, i.e., for the supply of long-term loans.

There was one such large bank, the Tata Industrial Bank, in this country; but unfortunately it also did not flourish and, after a few years of existence, was merged into the Central Bank of India in 1922. Yet the necessity of having many such banks in this country is really great

---

among weavers, basket makers (in C. P. and Bengal), carpenters, wood-carvers, blacksmiths, potters and others.

Note: Productive co-operation has not been tried in India on a large scale, but some people very strongly advocate co-operative farming, which has succeeded so well in Russia.

(f) Co-operative Dairy-farming, and Milk-supply Societies, as in Bengal. There are depots and depot managers whose duty is to receive the milk after noting the general condition with the help of a lactometer, and the Government also keeps its offices to ensure the purity of the milk supplied to customers.

(g) Co-operative Housing Societies, e.g., in Bombay, Madras, Mysore, Karachi and Ahmedabad, even in Aligarh.

(h) Better Living Societies, e.g., in the Punjab. At first, their aim was the reduction of ruinous expenditure on marriages, but many such societies have induced the villagers to improve ventilation in their houses, some have repaired and roofed the village drinking wells, etc. etc.

In Germany as well as in Japan they have done a great deal to promote industry, and the Government has rendered a great service to the country by helping such banks.

These industrial banks get their funds from fixed deposits from the people, by raising debenture loans, by getting advances from insurance companies which can easily afford to make long duration loans, and their generally very large paid-up share capital. In order that they may run successfully, they should not invest too large a part of their funds for the benefit of any single industry, nor be too eager to float new ventures. They should also have a considerable control over the management of business which they finance, through their representation as nominated directors. They should be unwilling to provide initial capital

(i) Death-benefit societies (when a member dies other members pay a rupee each, and 90% of this sum is paid to the family of the deceased); education societies; anti-malarial societies; rural reconstruction societies, etc., etc.

Progress of the co-operative movement in India.—

There are about a lakh and a half of societies of different kinds in India with a working capital of over a hundred crores, and a membership of about 60 lakhs, still this is nothing considering the great needs of the country. The movement has yet only touched the fringe of the problem in India.

In Denmark which is primarily an agricultural country every man who keeps a dairy, every person who keeps a poultry-farm, every producer of crops, vegetables and fruits, is a member of a co-operative society. There is, no reason why this should not be possible in India. Truly has it been said. *"If co-operation fails, there fails the best hope of rural India"*.

**(i) Industrial Banks —**

Industries require both long term and short-term loans. They want long term loans to meet initial expenditure like the construction of factory, purchase of machinery, etc. They want short-term loans, for meeting current expenses of the industry, as purchase of raw materials, payment of wages, etc. Industrial Banks are specially meant for the former purpose, i.e., for the supply of long-term loans.

There was one such large bank, the Tata Industrial Bank, in this country; but unfortunately it also did not flourish and, after a few years of existence, was merged into the Central Bank of India in 1922. Yet the necessity of having many such banks in this country is really great

---

among weavers, basket makers (in C. P. and Bengal), carpenters, wood-carvers, black smiths, potters and others

Note. Productive co-operation has not been tried in India on a large scale, but some people very strongly advocate co-operative farming, which has succeeded so well in Russia.

(f) Co-operative Dairy-farming, and Milk-supply Societies, as in Bengal. There are depots and depot managers whose duty is to receive the milk after noting the general condition with the help of a lactometer, and the Government also keeps its offices to ensure the purity of the milk supplied to customers.

(g) Co-operative Housing Societies, e.g., in Bombay, Madras, Mysore, Karachi, and Ahmedabad even in Aligarh.

(h) Better Living Societies, e.g., in the Punjab. At first, their aim was the reduction of ruinous expenditure on marriages, but many such societies have induced the villagers to improve ventilation in their houses, some have repaired and roofed the village drinking wells, etc., etc.

In Germany as well as in Japan they have done a great deal to promote industry, and the Government has rendered a great service to the country by helping such banks.

These industrial banks get their funds from fixed deposits from the people, by raising debenture loans, by getting advances from insurance companies which can easily afford to make long duration loans, and their generally very large paid-up share capital. In order that they may run successfully, they should not invest too large a part of their funds for the benefit of any single industry, nor be too eager to float new ventures. They should also have a considerable control over the management of business which they finance, through their representation as nominated directors. They should be unwilling to provide initial capital

(i) Death-benefit societies (when a member dies other members pay a rupee each, and 90% of this sum is paid to the family of the deceased); education societies; anti-malarial societies; rural reconstruction societies, etc., etc.

**Progress of the co-operative movement in India.—**

There are about a lakh and a half of societies of different kinds in India with a working capital of over a hundred crores, and a membership of about 60 lakhs, still this is nothing considering the great needs of the country. The movement has yet only touched the fringe of the problem in India.

In Denmark which is primarily an agricultural country every man who keeps a dairy, every person who keeps a poultry-farm, every producer of crops, vegetables and fruits, is a member of a co-operative society. There is, no reason why this should not be possible in India. Truly has it been said. *"If co-operation fails, there fails the best hope of rural India"*.

They should restrict themselves to supplying working capital.

Thus it may be summed up that the Indian banking system consists of the Reserve Bank of India at the top and the Indigenous Bankers at the bottom with the Imperial, the Exchange, and

---

### Rural Indebtedness in India.

The amount of agricultural debt (i.e., the debt owed by farmers to land lords and money lenders) according to the Banking Enquiry Committee is over Rs 900 crores. The hugeness of this sum is very distressing. What is even more distressing is that the greater part of the debt is unproductive and carries very high rates of interest. The reasons for the growth of this debt are —

(i) The insecurity of harvest, vagaries of rainfall, and loss of cattle due to famine and disease, etc., are usual in agriculture. These tell upon the meagre resources of the agriculturist, and very often sweep away his entire income with the result that he is forced into the arms of the money-lender.

(ii) Excessive pressure of population on land, and subdivision and fragmentation of holdings do not permit the agriculturist to earn an income that may be sufficient to meet his expenses, and his expenditure is met in the only way in which it is possible, namely, by borrowing.

(iii) Love of litigation, thriftlessness and extravagant expenditure on religious and social ceremonies, also compel him to live beyond his means, and he is forced to borrow.

(iv) Ancestral debt: *'Farmers are born in debt, live in debt, and die in debt, passing on the burden to those who follow'*. And the weight of this previous ancestral debt is so heavy that a large part of the current income is spent away in meeting the interest charges, and frequently further debt has to be incurred. The burden of the debt is particularly heavy on account of the high rates of interest charged by the money lender, due to the

the Joint-Stock and Co operative Banks in the middle; but, on the whole, the development of banking in India has not been satisfactory compared to population. England, America and Canada possess a larger number of banks than India. Deposits per head are the lowest in India. The villages practically possess no banking institutions where the people may keep their savings in safe custody. Only a few towns can boast of a joint-stock bank or its branch, and the use of cheques is restricted to large commercial centres. There are no industrial banks and few land mortgage banks

poverty and helplessness of the borrowers and the absence of proper security.

(v) Land Revenue policy—The heaviness of land revenue and the rigidity of its collection have also operated to increase the burden of indebtedness. The land revenue system requires to be made more elastic so that adequate and prompt suspension or remission of land revenue could be granted in times of rural distress.

(vi) Methods of cultivation followed by farmers are very primitive and unprogressive.

(vii) There are no marketing facilities. The farmer has to depend upon the landlord or the Sahukar etc. etc.

The measures that can be taken for reducing indebtedness are:—

(i) lowering of rates of interest by legislation;

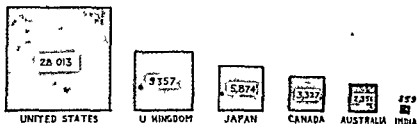
(ii) Further improvement in tenancy laws with a view to help the farmer;

(iii) formation of co-operative societies of all kinds on a very extensive scale;

(iv) formation of separate Land Mortgage Banks for long-term loans to cultivators and small land-holders;

and (v) education, higher standard of living, improved methods of cultivation, etc., etc.

etc, etc. The diagram below will give a comparative idea of the position of banking in different countries —



All efforts should therefore be made for **promoting banking development** in the country —

(a) The indigenous bankers should be made more useful by the adoption of up to date methods of banking, like the use of cheques, etc, and by being combined into a sort of co operative bank which would discount the hundies of members, and re-discount the same with the Reserve Bank. They may also be amalgamated with the joint stock banks very profitably.

(b) The work of joint stock banks must be placed on sound lines by insisting on sufficient reserves and proper accounting and audit, and by checking them from participation in non-banking and speculative activities, from declaration of large dividends to share-holders, etc, etc.

(c) Co operative credit societies should be multiplied, land mortgage and industrial banks should be started, more and more banks should be encouraged, the use of cheques should be popularised, etc etc. What is needed most is the spread of education and the banking habit among the people.

## QUESTIONS.

1. What are the proper functions of an ordinary modern bank? What is the difference between a modern bank and an indigenous money-lender?
2. What are the principal credit supplying agencies in your area that provide finance to the agriculturists, artisans, industrialists and traders? What improvements do you suggest in their working?
3. Give a brief account of the Reserve Bank of India. Analyze its functions.
4. What is a Commercial Bank? What are its main functions? Name four important commercial banks working in India.
5. Explain the chief functions of an Exchange Bank. How does it differ from the commercial bank?
6. How can co-operative credit societies benefit Indian cultivators and artisans? Why has this movement not made much progress in the United Provinces?
7. What are the causes of rural indebtedness in India? How far have the co-operative credit societies succeeded in solving this problem?
8. What services are performed by a banker? Is the village Mahajan a banker in the true sense of the term?
9. What is a cheque? How does the cheque system benefit both the depositor and the bank?
10. An indigenous banker has been described by some as a "Shylcock" and a "blood-sucker", and by others as the friend of the people. With which of the two views do you agree? Give reasons for your answer.
11. "Though generally hated, the village money-lender is essentially as good a banker as any other and the progress of India depends on recognising his importance and developing his work on modern lines."  
Do you agree? Give reasons for your answer.
12. Write short notes on:--
  - (a) A co-operative credit society.
  - (b) Land Mortgage Banks.
  - (c) Sahukari and Sarrafi systems.



## DISTRIBUCIÓN.

## CHAPTER 11

### THE PROBLEM OF DISTRIBUTION

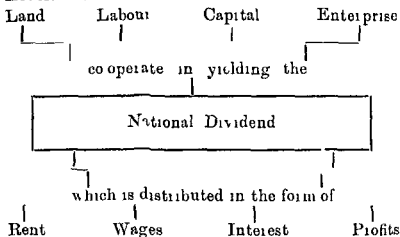
#### What is Distribution ?

*Distribution means the sharing of the income among the factors of production, namely, land, labour, capital and organisation which have jointly produced that income.*

The problem of distribution does not arise as long as the work of production is confined among different members of the same family. Each member of a family works according to his capacity and consumes according to his needs, and whatever is produced by the family is kept by the family for its own use. Thus there is no problem of distribution in the self-supporting stage.

The problem of distribution arises when production proceeds beyond the limits of a family. For instance, now a-days most of the artisans take loans from money-lenders for purchasing tools and materials, and work in rented shops ; and have to give interest on their loans and rent for their shops. Similarly, in mills and workshops, all the factors of production, namely, land, labour, capital, and organisation, co-operate together, and every commodity that is produced is the joint produce of the services

of all these. This system of joint work and group production, accompanied with division of labour and specialisation, has made it necessary to distribute the joint product among the various factors that helped to produce it, and has made the problem of distribution a very important problem in modern economic life.



[We see here that out of the national dividend rent is paid to the owners of land, wages are paid to labourers, interest to owners of capital and profits to enterprisers.]

### **What is there to distribute ?**

As much of wealth as the factors of production have jointly helped to produce

*"The amount to be distributed among the factors, or agents of production during any given period, which may for convenience be regarded as one year, is the aggregate value in terms of money of all services rendered by the agents of production during that period"* THOMAS

But it is rather difficult to estimate accurately the amount of wealth produced in any period of time. The simplest plan to adopt will be to measure the amount of wealth a nation possessed at the beginning of any period, preferably a year, and deduct it from the amount it comes to possess at the end of that period—the balance will represent the national income or the **National Dividend**. [Thus if the total wealth amounted to 2000 crores on the 1st. Jan. 1944 and 2500 crores on the 31st. Dec. 1944, the national dividend for 1944 may be put down at 500 crores. ]

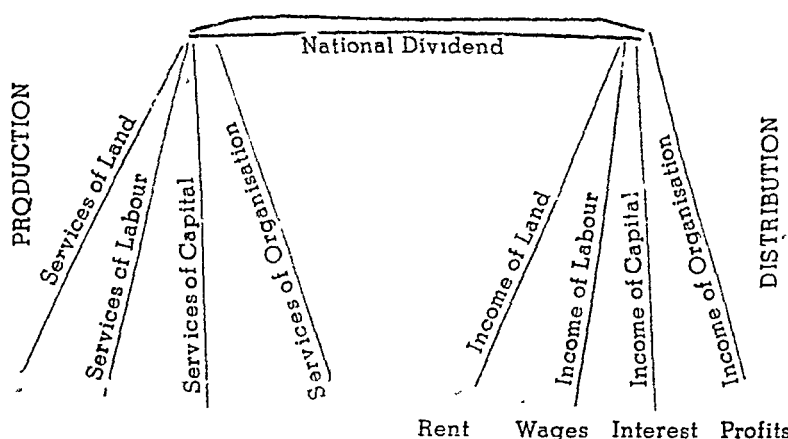
Another way of finding out the National Dividend is to find out the total gross product of the nation and then find out the national dividend by making allowance for the renewal or replacement of that part of the capital which is used up in the process of production. For example, a cultivator with a certain amount of labour and capital harvests a crop of Rs. 2000 a year. Before this sum is available for distribution, he must deduct the price of seed-grain he has used and the wear and tear of the implements he has used. Suppose these work out at Rs. 400. Then Rs. 1600 will be left for distribution. This will be his net product. And if we find out the total net product of all the individuals or of all the industries in a country within a fixed period of time, preferably a year, this is what will be available for distribution, and this is what is known as the National Dividend or the National Income.

## GROSS PRODUCT

Cost of raw material	Replace ment and renewals	Taxes	NET PRODUCT  or  NATIONAL DIVIDEND
----------------------------	------------------------------------	-------	--

[Note —This National Dividend is the sole source of payment to all the agents of production. It is not a fixed flow or stream, the flow depending upon the productivity of the factors of production. If trade is good and production in full swing the share of each factor in distribution is likely to be increased while if there is depression in trade, converse results are likely to follow. Let us try to understand this by means of an example. Suppose that a reservoir supplies a town with water. Before water can come out of the tap it has to be pumped into the reservoir. Any change in the reservoir causes a corresponding change in the water that each house can get. If a large quantity of water is pumped into the reservoir, the people of the town too, have a large supply of water while if the pumping machinery fails or the supply of water is diminished due to the dry season, the people of the town have to put up with a short supply of water. Similarly, if all the goods produced within a country were first of all put into some great reservoir situated in the centre of a country, it would be clear to every one that the well being of the people will depend upon the level of goods in the national reservoir—the greater the productivity of the factors, the greater the national dividend, the larger the share in distribution, and the smaller the productivity of the factors, the smaller the share in distribution. What are the shares and who are the sharers ?

The sharers are the land owners, the labourers, the capitalists, and enterprisers, and their shares respectively are rent, wages, interest and profits.



The contribution of each productive unit is being added to a vast reservoir of wealth, out of which is continually drained the surplus by four great streams which, in total, represent the national dividend, and, individually, form the incomes accruing to the four great classes in society—land-owners, labourers, capitalists and entrepreneurs, in the form of rent, wages, interest and profits.

**How are the shares determined ?**

( Theory of Distribution )

The share which goes to each factor of production is the price paid for its services in production—thus the share which goes to labour is the price paid for the services of labour. And since services like commodities have a market price, their price is determined by the *interaction of the forces of demand and supply*. The price of a factor depends on the amount offered in relation to the amount demanded, e.g., wages are high when labourers are scarce, and wages are low when labourers are plentiful; wages are high

when the demand for labourers is large, wages are low when the demand for labourers is small, interest is high when capital is scarce, interest is low when capital is plentiful, interest is high when the demand for capital is large, interest is low when the demand for capital is small, so on and so forth.

*This process of balancing demand and supply takes place through the enterpriser.* [ It does not matter whether the enterpriser is a single person or a body of persons as represented in joint-stock companies—he is the person who receives the income from the sale of the product and pays the rent, interest, wages and salaries regularly. ] He deducts from the entire produce, i.e., the gross product, the expenses on raw materials repairs, and depreciation of tools, i.e., replacement fund, and taxes, and distributes the balance, i.e., the net product among the factors of production, according to their marginal productivity and their marginal supply price

The enterpriser endeavours to employ each factor of production in such ratios as will give the greatest product possible, e.g., when he employs labourers, he decides how many he will employ by considering how much each will produce for him, and how much he has to pay to each man. He will compare the produce with the payment and will not hire labour beyond the point where the estimated productivity of the worker is at least just equal to the price paid for his services. Sup-

pose he has been so far employing 19 labourers and adds one more to this number. This new labourer, 20th in the list, is supplied with all other factors needed and produces goods whose market value is Rs. 30. In order to find out what portion of this wealth is the result of the man's labour, from Rs. 30 should be deducted the cost of raw material, rent, interest, depreciation, expenses of organisation, taxes, insurance, etc. If the total expenses on all these items come to Rs. 10, then Rs. 30 minus Rs. 10, i.e., Rs. 20, is the net value of wealth created by the labour of this 20th worker, and determines the maximum of wages that the enterpriser can pay to the labourer. Similar is the case with rent, interest, and profits. And we can safely say that it is the estimated marginal productivity of any factor of production that determines the demand for it, this marginal productivity of a factor being measured by the additional produce which accrues to an enterpriser when he employs an additional unit of that factor.

*However, it is not demand alone that fixes the share that is to go to the factors of production. Supply also has an effect.* Suppose the enterpriser considers it just worth his while to employ labourers at Rs. 2 a day each, because he estimates that each man can do at least Rs. 2 worth of work for him in a day; but finds that though he might be willing to pay Rs. 2 to a labourer there are so many candidates for employment that equally good workers are prepared to accept 8 as. a day



each Why should then the enterpriser pay him more ? On the other hand, suppose their supply price is large, their standard of living is high, then number is small and they can get more than this organiser gives, why will they accept service and obtain low wages ?

The conclusion is that, on the demand side, the share is limited by marginal productivity—wages cannot rise above this point, and on the supply side also it is limited by the standard of living of the labourers and the expenses of training they have to meet in order to be able to do their work—wages cannot fall below this point. Thus *there is a maximum beyond which the organiser will not pay and there is a minimum below which the factor will not accept, and the price of a factor of production at any time may be said to be determined by the marginal productivity of the factor on one side and the supply price of the factor on the other*, and neither the organiser alone nor the factor by itself can fix the share. In fact, competition is always going on between the organisers and the factors of production, and the price of a factor of production is fixed by this double sided competition. And, again, the enterpriser has always his eye on the productiveness of various factors of production in relation to their expensiveness to him. He compares the productivity of each succeeding unit of any factor of production with its expensiveness, and at the point where its expensiveness tends to exceed its productiveness, he stops any further employment of it, and begins to substitute

in its place a less expensive and more productive unit of another factor (the law of substitution). If, for example, a particular machine does not add at least as much to the product of industry as it costs him in interest, etc., he will not like to keep it in use, and will either have a different machinery or will employ two extra labourers. Similarly, if the marginal productivity of a particular class of labour is greater than that of a particular type of machinery, he will increase the quantity of the former and reduce that of the latter.

[ *The problems of distribution are but special cases of the problems of exchange.* In exchange we consider the value of commodities; in distribution we consider the value of services. In exchange the buyer has a maximum beyond which he will not pay for a commodity and this maximum depends upon the marginal utility of the commodity to him; in distribution, likewise, the enterpriser has a maximum beyond which he will not pay a factor of production, and this maximum depends upon the marginal productivity of the factor to him. In exchange, the seller has a minimum below which he will not accept, the minimum depending upon the cost of production of the commodity to him; in distribution, similarly, the factor of production has a supply price below which it will not accept, this supply price depending upon the standard of living, etc., in the case of labourers, upon the abstinence involved in saving in the case of capitalists, etc. etc. Again, demand and supply act and react on each other in the case of distribution as much as they

do in the case of exchange or the theory of value.

The only difference between exchange and distribution is that in the former we consider commodities while in the latter we consider services and that while in exchange the supply of commodities can increase or decrease at once, in distribution the supply of land can hardly be increased and the supply of labour, can be increased or decreased only slowly. Another difference lies in the fact that the marginal productivity of a factor of production cannot be measured as easily as the cost of production of a commodity. Every product is more or less a joint product, and we cannot correctly determine the marginal productivity of each of the factors separately—e.g., we cannot find out how much of the joint product is due to the services of land, how much to the services of labour, and how much to the services of capital etc, etc. "Land, labour, capital and organisation, unlike motor cars and loaves of bread, have no easily determinable expenses of production, and consequently the process of adjusting supply to demand is too complicated a process, indeed correct"]

### QUESTIONS

1. What do you study under Distribution? What is it that is divided and how does the distribution take place?

2. What is the problem of distribution in modern times? Explain it briefly

3. The distribution of wealth has become a practical problem because of specialisation of industry" Comment

4. 'The problems of distribution are only special cases of the problem of exchange' Explain and discuss the statement

## CHAPTER 12

### RENT

#### The Meaning of Rent.—

Rent, in ordinary everyday language means the tenants' periodical payment to the owner or landlord for the use of land or house or gardens. Thus sometimes the word indicates the price paid for the use of land alone; at other times it includes the amount paid for the use of land, a free gift of nature, *plus* payment of interest for the capital invested in the building which stands on the land; and at other times still it means a payment for the services of capital and labour rather than of land. So the word is used in a very vague sense.

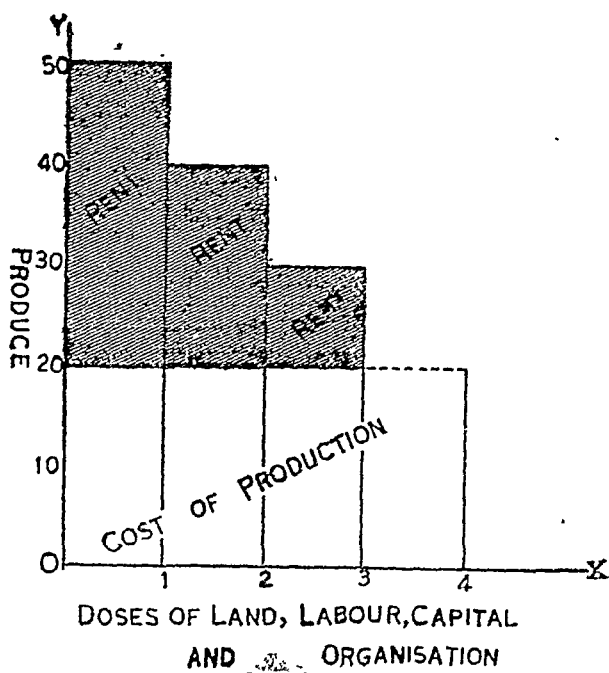
In Economics, however, the term '*rent*' means *payment for the use of land or other natural gifts to create which their owner has not been put to any cost*. It is the income arising from the productive employment of such things as land or mines or water-power. [The rent of a house is not the true economic rent. It is a mixed rent or gross rent including ground rent *plus* interest *plus* other charges. Suppose a person agrees to pay rent at the rate of Rs 100/ a month; and suppose that out of this Rs 60/ represents the remuneration to be paid to the landlord for his investment in the construction of the building, i. e., the interest on the capital invested in the building, etc., then Rs 40 is the income that arises from the use of the natural resources as such; and it is this that is to be regarded as economic rent. Similarly, in

agricultural land, sometimes improvements of a permanent nature are made, and the rent of such a land cannot be called ground rent, unless the payment which is made in consideration of the permanent improvement is deducted therefrom]

And, in Economics, it is not necessary that what we understand by rent should be paid by the tenant to the landlord or by one person to another. Rent in the economic sense has been defined as a surplus accruing to a specific factor the supply of which is fixed, namely, land. It is simply the surplus over and above the produce on the marginal land that is under cultivation at a certain time. Naturally, the owner of the land may get it by working on it himself. Suppose, for example, there are two equal pieces of land, one owned by A and the other by B. A's land just pays the cost of his labour and capital, but no more. That is to say, it is the marginal land. B's land is more fertile than A's, and its produce is greater. The surplus is not due to B's efforts but purely due to certain natural and differential advantages of B's land over A's. Such surplus is called rent or rather **economic rent** and may be enjoyed by B all right. [ When we use the term 'rent' simply we mean this economic rent. ]

Let us try to form an idea of it by means of a numerical example. Suppose there are four qualities of land, and, with an equal amount of land, labour, capital, and organisation, the output from them is 50 mds, 40 mds, 30 mds, and 20 mds respectively. Then the last one is the land on the margin of cultivation, producing only as much as is the cost

of production ; and it is this land that will determine the price in the market. The other three lands will enjoy a surplus, known as rent, of 30 ( i.e.,  $50-20$  ) mds., 20 ( i.e.,  $40-20$  ) mds., and 10 ( i.e.,  $30-20$  ) mds., as represented by the shaded portion in the diagram below;—



Thus, *Carver* has defined rent as follows:—

*“The rent of any given piece of land is what it will produce over and above what could be produced on the poorest land in cultivation by the same amount of labour and capital.”*

*Note.* If, however, the landlord does not cultivate the land himself, but lets it out on hire to a tenant, he will get what is called **contract rent**, which may be more or less than the actual economic rent. Contract

rent is defined as the compensation paid to the landlord for depriving him of the economic rent of his land. It is fixed by an agreement or contract between the tenant and the landlord, and, like the price of a commodity, depends upon the forces of supply and demand. Both the landlord and the tenant have in mind the surplus or the economic rent that can be got from the land, and if the demand for the use of land is great in proportion to the supply of land, rents are high, while if the demand is small relatively to the supply, rents are low.

*Generally speaking, when there is perfect competition between the landlord and the tenant, contract rent is equal to economic rent but it may be more or less than the economic rent in certain exceptional cases.* For example, in a new country, the landlord may be anxious to induce the cultivators to take up land and may be satisfied with much less than the economic rent. Or, in an old country, he may be able to get much more than the economic rent from the cultivator, if the latter is conservative enough to stick to the land at all costs, or, due to a large demand for land and the absence of other employment, he may be forced to give a high rent. Thus in India there is a very keen competition between tenants, and as they are not able to find employment in any other industry, they like to forego a part of their rightful income in agriculture and pay more than the economic rent. In other words, they pay more for land than they get out of it after making allowance for their

own remuneration; or, which means the same thing, they carry on cultivation on a much smaller remuneration than their labour, etc., should bring for them, with the result that they are becoming more and more indebted every-day. On the other hand, in new countries like Australia and Canada, the contract rents are lower than the economic rent. Even in England, where there are a number of occupations which may be adopted if farmers decide to give up farming, the contract rents are much lower than the economic rents

#### How rent arises.—

(i) Rent is due to the scarcity of land in relation to demand. We know that if the supply of anything is scarce in relation to demand, it will command value in the market. Similar is the case with land. Because the supply of land is inadequate to meet the demand for land, it commands a price in the market, and that price is rent. If people had an unlimited supply of land, as in a newly populated country, nobody would pay anything for the possession of land. Everybody would take up as much land as he liked, and begin to cultivate. Thus the limitation of supply in relation to demand is the main cause of rent.

[Let us try to understand this by an example. Suppose a number of farmers go and settle in a new country. Land is in abundance there. There is as yet no owner of land, and each farmer appropriates as much land as he can cultivate. So, one by one, the best plots of land are cultivated, and the crops are just sufficient to satisfy the needs



of the population. There is no rent yet in such a country. In course of time, however, the population increases, or a fresh batch of people go and settle there. It will then become necessary to increase the supply of food crops, and more lands must be cultivated to grow more crops. But all the best lands have already been appropriated. So the new settlers begin to clear the second grade lands and cultivate them. These are less fertile and so will yield less of crop. If the first grade land yielded 30 mds in one acre this second grade land will yield only 25 mds say. And the first grade land will begin to enjoy a rent of 5 maunds because land has become scarce. So on and so forth.]

(ii) Another cause of rent is the tendency to diminishing returns. If there were no diminishing returns, the world's supply of wheat could theoretically be raised from one farm only by increasing the labour and capital on it. But we know that nothing like this is possible. When the law of diminishing returns begins to operate in a certain class of land, inferior class of land has to be brought under cultivation, Naturally the better class of land begins to enjoy rent. Even if all land were of the same quality, rent would emerge if the plots were cultivated beyond the point of diminishing returns, because in some the law would be in operation, in others not.

(iii) There are also other causes. All lands are not equally fertile. Some are more fertile than others, and hence these will produce more. There is thus a greater demand for such lands, and

the supply being what it is, they command a higher rent in the market. Also those lands which are situated nearer to the market than others will command a higher rent, because the cost of production on these lands, including the cost of transporting the produce to the market, is evidently lower than on the distant lands. Demand for such lands will naturally be greater, and their rent will also be higher.

Hence we see that *the fundamental cause of rent is the limitation of the supply of land in relation to demand, and the other causes are the differences in the fertility and situation of different plots of land and the operation or non-operation of the law of diminishing returns.*

#### **Rent in Intensive and Extensive cultivation.—**

When the demand for agricultural produce increases, there are two methods by which this produce is increased. Either fresh and new plots of land are brought under cultivation (extensive cultivation), or old plots of land are cultivated more intensively (intensive cultivation). In each case, the yield from further doses of labour and capital declines; in the first case because new plots of land are likely to be less fertile than the previous plots, and, in the second case, because, on account of the operation of diminishing returns, additional doses of labour and capital do not yield as much as the previous doses.

Before the cultivator applies any extra dose he compares the yield which he hopes to get, either by bringing under cultivation a fresh plot, or by applying an additional dose to his old plot, and adopts

that method (extensive or intensive) which appears to him to be the cheapest and most paying. Suppose the yield in the case of extensive cultivation is as follows—

Plot A	Plot B	Plot C	Plot D
20	19	18	17

and in the case of intensive cultivation as follows:—

Plot A	Plot B	Plot C	Plot D
1st Dose 20 ✓	1st Dose 19 ✓	1st. Dose 18 ✓	1st. Dose 17 ✓
2nd. Dose 19 ✓	2nd. Dose 18 ✓	2nd. Dose 17 ✓	2nd. Dose 16 ✓
3rd. Dose 18 ✓	3rd. Dose 17 ✓	3rd. Dose 16 ✓	3rd. Dose 15 ✓
4th Dose 17 ✓	4th Dose 16 ✓	4th. Dose 15 ✓	4th. Dose 14 ✓

The first dose on plot A yields 20 mds. of wheat. If he wants to apply the second dose, he will compare the produce that the next plot will yield with the produce that another dose on the same plot will yield and then will decide whether to cultivate extensively or intensively. In this example he will have the first two doses (20 mds. and 19 mds) on the plot A and will then pass on to plot B (19 mds), so on and so forth.

Now, rent can be calculated either in extensive cultivation or in intensive cultivation. In extensive cultivation, rent is determined with reference to the yield of the marginal land and that of any other which is not on the margin. In intensive

cultivation, rent is determined with reference to the yield of the marginal dose and that of any of the previous doses. The difference between the yields of the two is rent. And in both extensive and intensive cultivation it turns out to be the same amount. For example, in the above illustration, we may either have two doses on plot A or one on plot A and the other on plot B, but the marginal output in both the cases would be 19 mds.

### **Ricardian theory of Rent.—**

According to *Ricardo*,

(1) Rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible properties of the soil.

(2) As long as the population of a country is small and the best land is abundant, and can be had free, only the best lands are cultivated and rent does not exist. But as the pressure of population on land increases, lands of second grade quality are brought under cultivation, and the best lands begin to enjoy rent, while lands of the second grade quality become marginal lands. Later on, when third grade quality lands are brought on under cultivation, they become the marginal lands and the first and second grade quality lands enjoy rent. Similarly, with increasing population the margin of cultivation goes on descending and rents go on increasing, but at any time the worst lands under cultivation are the marginal lands, and it is these that determine the price in the market.

(3) The worst land or the marginal land that fixes the price of produce in the market at any time

is the no-rent land, and as it is this no-rent land that determines the price in the market, rent can not be said to enter into price—"Corn is not high because rent is high, but rent is high because corn is high," says *Ricardo*.

### Criticism of Ricardian theory.—

(1) The definition given by *Ricardo* is far from being satisfactory. Land in most countries is not in its original and natural state. Nature of soil has been changed by man. Marsh land has been dried and turned into pastures. Dry land has been irrigated. And much land has been reclaimed from the sea, e. g. in Holland. Again, the properties of the soil are not indestructible—repeated cultivation of the same farm year after year reduces the stock of original substances in the soil and causes diminishing returns. Against these, it may be said that, after all, the qualities of land, e.g., heat, light, rainfall, climate, area and advantages of situation are original and indestructible.

(2) American economists point out that the theory is not historically true. They say that the most fertile plots of land were not occupied first, as supposed by *Ricardo*. It is just possible that the less fertile lands may have been brought under cultivation in the first instance. Against this view, it should be remembered that the order of cultivation is not an essential part of the theory. It is the differences in fertility that bring about rents.

(3) Again, it is said that there is no land in man's experience which may be called no-rent land. But

the fact remains that land on both sides of a river in most cases and "Usar" land, etc., etc., are practically no-rent paying lands. Besides, there are at least no-rent-paying lands in America, Canada, Australia, etc., and the land and the produce in these countries compete with the land and the produce in other countries, and so the idea of no-rent land is quite conceivable. And when the marginal lands are no-rent-paying lands, whether here or in any remote country, it is quite clear that rent forms no part of those expenses of production which govern price. [Of course, in case land is the property of a government, the government may decide to give over pieces of it to others only if it is promised a rent or revenue. In such cases even the marginal lands shall pay rent, and then rent would enter into the expenses of production of marginal lands, and to that extent it will enter into price.]

(4) Another important criticism of *Ricardo's* theory is that it can be true only when there is full and free competition between the landlords and the tenants, which it is not always possible to secure. Rents are in practice determined not by competition alone, but by many other forces like custom, practice, sentiment and public opinion. For example, the landlord may have intimate personal relations with his tenant. So he may feel scruples in charging as high a rent as is possible for him to do. Or, he may hesitate in charging a higher rent than the tenant has been paying since generations. Even the tenants may refuse to pay higher rents. In fact, the theory of rent has

to be modified by the facts of real life. At any rate, in the case of India, rent is determined not by competition alone, (even the competition that there is to be met with is only a one-sided competition for land between tenants only and not between landlords), but by custom and legislation, and in many cases contract rent exceeds economic rent.

It is, therefore, said that a perfect market does not exist anywhere, *the theory of Ricardo does not apply anywhere, much less does it apply in a conservative country like India*

*Yet, in essentials, the theory is correct even today. The modern theory of rent is based largely on the works of Ricardo, with a few modifications here and there to fit in with modern conditions. For example, even today rent is defined as the surplus accruing to a specific factor the supply of which is fixed, and is considered to be due to the differential advantages of the superior over the inferior. The modifications of the theory are only in respect of details*

### **Rent and Cost of Production or Price —**

The price of a commodity is determined by the cost of production of the marginal land. The marginal land does not pay any rent because it is the no-rent land and the value of produce on it is just sufficient to cover the expenses of production, (including the farmer's remuneration, of course) —that is to say, its cost of production does not include any rent. *True rent, therefore, does not enter into the cost of production that determines price.* In other words, 'rent is not an element of

price but its effect," and "corn is not high because rent is paid, but rent is paid because corn is high."

Thus there are 3 plots of land A, B, C. The cost of production of a certain quantity of grain is Rs. 50/- in the case of A, Rs. 75/- in the case of B, and Rs. 100/- in the case of C. C is evidently the worst land, and the price of the produce in the market is likely to be Rs. 100. That means that C, being the marginal land, will enjoy no rent (i.e., price of the produce *minus* the cost of production will be equal to nil), but A will enjoy a rent of Rs. 50/- (i.e. Rs. 100/- *minus* Rs. 50/-) and B of Rs. 25/- (i.e., Rs. 100/- *minus* Rs. 75/-). Now, whose cost of production has determined the price? C's. Did it pay or enjoy rent? In other words, was any rent included in its cost of production? No. How can it be said then, that rent is a part of that cost of production which determines price?

As a result of this proposition, if the landlord raises the rent, or reduces the rent, price will not go up or down, for the marginal cost of production which includes no rent remains the same, and the price in the market, which is fixed by the marginal cost of production, will also remain the same. Thus had not farmers to pay any rent for land, they would charge for grain as much as before. The remission of rent by the landlords will not reduce the price. Only it will benefit the tenants. The price of grain will still be determined by supply and demand which are not affected by the revision. On the other hand, if the landlords raise the rent,



it does not necessarily mean that the price of grain must go up. The price may be increased temporarily, but at last the tenant will give up the land, and the landlord will be compelled to reduce the rent.

*Examples.—*

Suppose a briefless lawyer takes a big house in a town, for which he pays a high rent. Can he charge high fees merely because he is paying a high rent for his premises? No, the fees will depend on the supply of and demand for lawyers of a particular class. [No doubt, houses near the law-courts in most towns command relatively high rents, but this is so because the houses are conveniently situated for a lawyer's practice, and in that locality the lawyers who occupy those houses are able to charge high fees from their clients. And because they are able to charge high fees, they are also, prepared to pay high rents. They cannot charge high fees simply because they are paying high rents.]

Again, a shopkeeper occupies premises in a busy quarter of a town for which he is paying a high rent to the landlord. Suppose the owner of the shop is his relative, who dies and leaves the shop to him. Now the shop-keeper has to pay no rent. Will he charge lower prices for his goods? No. Prices will still depend upon the demand for and supply of goods in the market, and the amount of rent will be pocketed by the shop-keeper.

There are, however, some **exceptional cases**

where rent forms a part of the marginal cost of production, and, therefore, enters into price:—

(a) If the State has a monopoly of lands in the country and exacts more than the actual economic rent, then that rent will enter into the price of agricultural produce. In India the State is the monopoly landlord (absolute owner of all lands) and charges rent even from the marginal lands. So here rent influences price.

(b) Sometimes rent has to be paid even on marginal lands when lands for one use (e. g., for wheat-growing) are converted into lands for another use (e. g., for cotton-growing). Owing to the scarcity of land, even marginal building plots, marginal business sites, and marginal factory sites yield rent, which is 'scarcity rent'. For example, if a land is paying some rent in producing wheat, then, in order to divert it for the production of cotton, the producer will have to pay at least the rent which it was fetching in the former use. (Here the better plots pay two kinds of rent: (1) scarcity rent and (2) differential rent. Scarcity rent is due to the absolute scarcity of all kinds of plots. Differential rent is due to differences in the situational and other advantages of different plots of lands. And, as the tenant on the marginal plot pays scarcity rent, he treats scarcity rent as an item of expenditure, and includes it in the marginal cost of production, and consequently scarcity rent might be said to enter into price, though even here the differential rent does not govern price in any way.

[ Note.—Rent may be said to enter into the individual cost

of production, no doubt, but it cannot be said to enter into that cost of production which determines price, for it is not the individual cultivator that determines price. The price is determined by the marginal cultivator who pays no rent.]

### **Factors affecting Rent.—**

The amount of rent depends upon the market-price of the produce. A fall in the price of the produce raises the margin of cultivation leading to a fall in rents, whereas a rise in the price of the produce brings about the cultivation of worse lands, lowers the margin, and causes rents to rise.

### **Growth of population.—**

An increase of population would tend to raise agricultural rents, as the demand for produce would increase, inferior lands would come under cultivation and prices would rise. Secondly, the pressure of population on land would encourage the use of land for purposes other than agriculture, and the growth of wealth and prosperity within a country would lead to an increased demand for land in a variety of ways, recreation grounds, pleasure gardens etc. and therefore also rents would rise.

### **Improvement in the means of transport.—**

This may tend to increase or decrease rent in a country according to circumstances. If the country is connected to other countries which are such that the country begins to export produce to those countries, the demand for the produce will increase, prices will rise, margin of cultivation will fall, and in consequence rent would also rise. But if the country is connected to such countries as begin to send produce to this country, the extensive

margin in the country, would fall, and hence rents would fall, too. For example, rents in America rose with improvements in transport which enabled American farmers to produce large quantities of corn for export to England — prices rose, the margin of cultivation fell and rents increased. But the opposite happened in England, where the total supply of wheat increased, prices fell, and the rents of English lands fell, too.

Inside the country itself, of course, improved means of transportation lead to a reduction in the cost of transportation, and, therefore, in the cost of production of the output in the market. This tends to increase rent on the one hand, and to reduce price on the other. Two opposing forces come into operation, indeed, and the net effect on rent depends upon the comparative intensity of these.

*Improvement in methods of cultivation.—*

Improved methods of cultivation increase the productivity of land; and the same amount of produce can be raised from a smaller number of plots. Hence certain plots go out of cultivation, margin of cultivation rises and rents fall. Lower prices, however, increase demand and restore the old level of rents.

[If, however, improvements are adopted only on a few superior farms, their produce will increase more than that of interior lands, and so their rent will also increase. And if, on the other hand, they are adopted only on a few inferior lands, the difference between the superior and the inferior

lands will decrease, and the rent on the superior lands will fall ]

### Rent of Mines, Quarries, etc.—

*Mine rent* resembles agricultural rent in that we have diminishing returns in mining as well as in agriculture. There is extensive margin when we pass from the superior mine to the inferior one. The intensive margin is discovered when additional investments are concentrated on the same mine. However, mines differ from agricultural lands in that the latter will yield their harvests year after year indefinitely, whereas the former contain limited stores and will get exhausted after some time. And rent in the case of mines is composed of two elements. (a) royalty—a payment for the exhaustion of the minerals removed, and (b) a rent proper which is paid for the differential advantages in mining of the superior over the inferior mine (from the point of view of working expenses and situation)

*Building rent* also is composed of two elements (a) the return on land on which the building is situated, and (b) the return on capital invested in the building. Rent of a building site is a payment for the differential advantages of situation, healthfulness of the site, conditions in the neighbourhood, individual likes and dislikes for a particular environment, etc. In the case of business sites, the conditions of trade and industry, custom and general lay out of the town, also play an important part.

*Rent of sources of power*, similarly, is determined largely by situation. For instance, it is

profitable to use the power of the Niagara because it is surrounded by a rich agricultural and manufacturing country. On the other hand, if a source of power is situated at long distances from district which want it, it would proportionately lose in utility.

### Quasi-rent.—

We have seen above that rent is due to scarcity of land, or the limitation of its supply. There are several other things besides land whose supply becomes so far limited during certain periods that, for all practical purposes, and during a particular time, there is not much difference between those things which are limited by nature and those whose supply becomes limited for other causes. All earnings caused by a temporary scarcity in supply, are called quasi-rents by Marshall.

*Examples.*—The supply of ships becomes restricted at a certain time. It will take, say, three years to build more ships. During these three years then, the existing ships will earn an extra-ordinary profit, and this will be known as *quasi-rent*. Similarly, if the supply of any class of labourers runs short at any time, the existing number of labourers will begin to earn higher wages than the normal wages—such as doctors, whose supply cannot be rapidly increased or diminished.

[ Of course, in the long period the supply of ships etc, will increase, and the quasi-rent will disappear. The main difference between rent and quasi-rent is that rent is the income from those things whose supply is permanently fixed, either in the short or in the long period, whereas quasi-rent

is the income from those things whose supply is fixed in the short period, but can be increased in the long period ]

### Unearned Increment —

During the last hundred years population has increased and crowded more and more in towns and cities. The values of land have increased on account of social progress. For example, the value of land in New Delhi 30 years back was very low but it increased ten times with the decision of the Government of India to construct Viceregal Lodge, Assembly Chambers etc, etc and has again increased during this world war because of the growing importance of the town. This increase in the value of land is known as unearned increment, since the landlord generally has done nothing for the improvement of land. [ Some people think this should go to the government in the form of tax because it is due to social progress and not to the efforts of private individuals ]

### Systems of Land Tenure in India

Land tenure means the kind of right or title by which agricultural land is held. It determines the person or persons responsible for the payment of land revenue to the Government.

#### \* Is land revenue a tax or rent ?—

*Some people argue that land revenue is rent because*

(1) The rights of ownership have always belonged to the government. People have been granted lands and sometimes deprived of their lands by the government. And the amount of land revenue has been increased or\* decreased at the will of the government.

[ In India, however, the problem of land and people has two aspects: the relation of the Government to the landlord, and the relation of the landlord to their tenants. Land tenure ordinarily expresses the relation of the landlord to the Government while tenancy laws govern the relationship between the landlord and tenants generally. However, as both the relations of zamindars with the government and the relations of the cultivators with zamindars are regulated by legislation, some people use the term Land Tenure for the system of agreements under which the landlords or the cultivators hold their lands from the Government. ]

Three main types have been recognised in India:—

✓ (a) *Zamindari system*.—This system is found in the landlord villages where the owner is a single individual (or at the most there are a few joint owners). Here the landlord is made responsible in one sum for land revenue on the whole estate, as in Bengal, Behar and Orrisa, and in some cases in U.P.

---

(ii) The Government has also from time to time performed several functions of the landlord, e.g., giving of advances and loans to the ryots for sinking wells, drainage, and irrigation purposes, etc.

Others urge with equal plausibility that lands have remained with the families from generation to generation; and the individuals have full property rights, including the right of transferring the land to anybody they like. Besides, land revenue is only a part of the income from land. Thus they hold that land revenue should be considered only as a tax on lands, or as a tax on agricultural incomes, just as there are taxes levied on houses and motor cars. This is also the general opinion.



He gets his rent from his tenants who cultivate the estate in various kinds of under tenures. He is a middle man between the government and the ryots.

(b) *Mahalwari or Village Community system* —

This system is found in joint-villages where in each village the owner is a body of co-shares, and the village is treated as a single unit. Here it is a whole estate, known as the *Mahal*, which is assessed to one sum of land revenue, and generally the whole body of owners are jointly and severally responsible for it though exemptions from joint responsibility are sometimes granted by the Government. Further, here the village community as a whole owns the waste land, and can use it i.e., can rent it to tenants or partition it or bring it under cultivation without the leave of the Government. [ The Government revenue is paid through the head of the village the *Lambardar*, who acts as the representative of all the co-shares or the entire village community. He alone deals with the Government, but he realises the co-shares' share of the revenue from them all right and enjoys some privileges and concessions, too. ] This system prevails in the United Provinces, the Punjab and C P ]

(c) *Ryotwari system* — This system is found in villages containing a number of individual cultivating holders ( who usually work their land themselves with the aid of their families but sometimes employ labourers, too ) These holdings are separate independent units and the cultivators are not joint

holders of the whole area. Here the revenue is assessed on each particular holding and each individual is directly responsible for the payment, as in Bombay, Madras, Assam, and Burmah. The government deals with him directly or through their head called *Patel*. Further, the waste land, in this system, is *Nazul* property, except that the owners have some grazing rights, etc. In this system the revenue demand of the government can be increased after 30 years or so, but it is definitely laid down that if the Ryot (or the farmer) goes on paying the agreed amount of rent, he can remain in possession of his holding for any period whatsoever. On the other hand, if he wants to give up his holding, he can do so after giving a short notice.

#### ✓ **Systems of Land-settlement.**—

The method of determining land revenue is officially termed as "*Settlement*." What is to be determined is (a) the Government's share of the produce, i. e., the amount of the land revenue payable to Government, (b) the person or persons responsible for the payment, and (c) the records regarding the private rights and interests in the land.

These settlements may be :

(a) *Permanent Settlement*.—Under this type the amount of revenue is fixed once for all at rates never to be increased or decreased. This fixed amount is payable by the landlord to the Government in a lump sum every year; and there is one very rigid condition that if the revenue is not paid on the fixed date, the estate shall be put to sale for

the realisation of the revenue.

This system was introduced by Lord Cornwallis in 1795, and is to be met with in Bengal, Assam, Behar, and North East of Madras, and in certain parts of the country near Benares.

*(b) Temporary Settlement.—*

Under this type, the amount of revenue is fixed for a certain period, which is 40 years in the Punjab, 30 in Bombay, Madras and U. P., and 20 in the Central Provinces. At respective intervals, a thorough economic survey is conducted of the land, and the whole process is accomplished by the settlement officer who determines the *government* demand, and makes a record of all existing rights and responsibilities. Temporary settlements are by far the most common type all over the country.

Those who are in favour of the permanent settlement contend that it has been brilliantly successful. It has secured to the Government a fixed and steady income without the necessity of incurring expenditure everytime in connection with settlement operations. It has secured to the government the loyalty of the landlords, it has enabled them to effect improvements in their land; and it has increased the conditions of agriculture and made tenants more prosperous. Those who are against permanent settlement maintain that it has deprived the government once for all of every increase in the value of land and of a share in every subsequent rise in rents, while the zamindars and middlemen have prospered at the expense of the tenants, who are at their mercy. The real

fact is that the gain or loss of the government is really the gain or loss of the people as a whole, while the gain of the zamindars, or of any other class of people, is only the gain of a few private individuals, and from this standpoint permanent settlement has not been a satisfactory type. One important source of revenue to the Government is altogether blocked. The Bengal landlords are very rich, but the revenue demand cannot be enhanced to meet the growing expenses of the administration of the province, and the Government has to tax other sections of the population more heavily than perhaps it should. Besides, the increased prosperity of the zamindars under the permanent settlement has not proved a blessing to the country, in as much as they generally use their riches for satisfying their personal wants. They do not deal with the tenants sympathetically nor do they try to ameliorate their condition by making improvements on land and helping them in other ways. In fact, the tenants have been very much troubled by the landlords, the Government having made no proper provision to safeguard their interest, though recently some tenancy laws have been passed to regulate the relations between landlords and tenants. However, a proposal is now on foot to do away with the permanent settlement altogether. Land will be purchased from the Zamindars by the Government on payment of some price, spread over a number of years; and then this land will be given to the ryots or tenants directly by the Government as in the Ryotwari system.

### Land Tenure in U P —

The settlement of the U P. is called Zamindari in contra distinction to Ryotwari, and Temporary in contradistinction to Permanent. The revenue system is called Zamindari because the Government enters into revenue settlement with the zamindars of the province and not with the ryots themselves as in parts of Deccan, it is called temporary because the share of the government in the profits of the landlords, i.e., the amount of land revenue, is fixed only for a period of 30 years and not permanently as has been done in Bengal. (The share of the government roughly is 50 per cent of the net average assets.)

The prevailing system of tenure in the province is, however, the Mahalwari or the joint village tenure. The revenue is fixed with the co-shares who are held jointly and severally responsible for its payment to the government treasury through the Lambardar.

### Tenancy Laws in U P —

In India the competition for land is very keen, and tenants on account of their weak economic position require protection from the government. The tenants are at the mercy of the landlords, who not only increase the rent at their pleasure but also eject the tenants whenever it suits them to do so. Tenancy laws have, therefore, been framed in every province to secure to the tenants two essential requirements of good cultivation.

(1) Fixity of tenure i.e., the tenants cannot be ejected from their tenancy without cause, and thus

they have an inducement to introduce improvements in their land, and increase its production. If there is no certainty that the land would remain with them, they would not care to make any improvements for the future

(2) Fair rents, i.e., the rents payable by the tenants cannot be enhanced at the sweet will of the landlord, and the revenue courts see to it that the rents are fair. If the rents can be enhanced at any time and to any extent the tenants can have no personal interest in improving the productiveness of the land, for as the productiveness would increase, the rents would also be increased.

In the United Provinces, the tenancy laws provide the following classes of tenants:—

*According to the Tenancy Act of 1901.*

(1) *Permanent tenure-holders and fixed rate tenants*, whose rate of rent is fixed from the time of the permanent settlement. They are found only in the permanently settled areas of the Benares Division. They are a sort of sublandholders. Their rate of rent is fixed, and their right is heritable and transferable. They can effect permanent improvements in their lands and can even sell or mortgage them.

(2) *Ex-proprietary tenants*, i. e., those tenants who had once enjoyed the possession of the estate or the "Mahal" but subsequently on account of financial difficulty lost it, retaining only the "Sir" land, i.e., land which they used to cultivate while they were zamindars. After 12 years' continuous hold on this land, the tenants acquire ex-proprietary

rights which grant them a concession of 25 per cent on the rent calculated on the basis of that paid by ordinary tenants on the same kind of land. Expropriatory tenants cannot sell their land to anybody except their present landlord, but they cannot be turned out, except for non-payment of rent, and their right is heritable, too.

(3) *Occupancy tenants*, i.e., those tenants who have held the same land for 12 years continuously and have thus acquired the rights of occupancy, and cannot be turned out from their holdings except for non-payment of rent. Their right over the land is heritable, but not transferable except under certain conditions. They have to pay  $12\frac{1}{2}$  per cent less rent and there is a limit to the enhancement of rent both in respect of time and amount—the rent cannot be increased except by mutual agreement, or by an order of the revenue court, and that too only after a certain period of time, e.g., only once in 10 years, and not more than one anna in the rupee.

(4) *Non-occupancy tenants*, or tenants-at-will. They include those tenants who have no right in land, and can be ejected at the sweet will of the zamindar. They enjoy no stability of tenure. (The Tenancy Act of 1927 aimed at converting all such tenants (provided they had cultivated the land for one year) into statutory tenants; but the landlords seldom allowed any one tenant to cultivate the land for full one year, and so the act could not help this class much.) According to the Tenancy Act of 1927.

(5) *Statutory tenants*, i.e., those tenants who cannot be ejected out of the land once they have

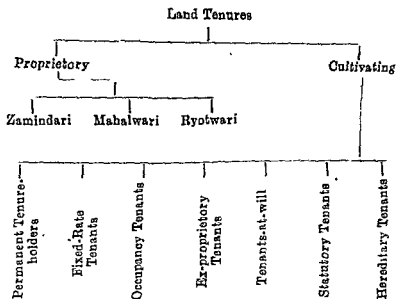
tilled it for one whole year, except for non-payment of rent, and this, too, not without a decree from the court. Nor can their rent be increased within a specified period except on certain grounds, e.g., no second increase in rents is possible till 20 years have passed. (This new class of tenants was according to the statute or law passed in 1927, and hence these tenants are known as statutory tenants.) All the tenants-at-will, who, before the passing of this Act, could be arbitrarily ejected at the close of any agricultural year, were turned into statutory tenants for life with a right to the heirs to hold the land for 5 years. On the expiry of these five years only could the landlord eject the heir.

*According to the Tenancy Act of 1939.—*

(6) *Hereditary tenants.*—They are tenants created by the new Tenancy act of 1939. They replace the old statutory tenants. Their rights are heritable, but not transferable. These tenants have been classified under three heads:—(a) all men who were tenants in the United Provinces on Jan. 1, 1940, otherwise than as tenants of the 1st, 2nd, 3rd, or 5th types above, (b) all men who after the beginning of this act are admitted as tenants otherwise than as tenants of *Sir* or as sub-tenants. (c) all men who acquire hereditary rights by virtue of the provisions of the new Act—namely those who were statutory tenants or heirs of statutory tenants and some others. Thus all persons cultivating land from a landlord have become hereditary tenants for the future and can never be removed except for non-payment of rent.



Thus we have the following classification of Land Tenure :—



From the above it will be clear that the Government has tried to confer special rights on certain classes of tenants, and this has given them sufficient protection against high rents and ejectment by the landlords, although in actual practice the landlords have always been found trying to use ways and means to defeat these laws.

However, by the Tenancy Act of 1939, the position of the tenants has very much improved, as the act includes the following provisions:—

1. All Statutory tenants have been granted the rights of a hereditary tenant.
2. Tenants have been allowed to plant trees on their holdings, to construct any building, to make any improvement.
3. Tenants cannot be ejected except for non-pay-

ment of rent.

4. Landlords are compelled to issue receipts on collection of rents.
5. Tenants cannot be sent to jail for arrears of rent.
6. No distraint is allowed.
7. The collection of illegal dues has been made illegal.
8. The landlords' right of *Sir* has been curtailed. The landlord cannot have more than 50 acres of *Sir*, etc., etc.

#### **Characteristics of a good system of land tenure.—**

( 1 ) There should be some fixity attached to it. That is to say, the tenants should be allowed to retain possession of their holdings without any fear of ejectment. There should be least possible cases of ejectment, and no cases of arbitrary ejectments.

( 2 ) The rents should be fair, and it should not be possible to enhance the rents without sufficient reason or within a certain period.

( 3 ) It should be such that capital can be invested for improvement of land without any fear.

( 4 ) It should be such as to secure a definite amount of revenue to the Government, and at the same time it should bring prosperity and plenty to the people.

( 5 ) It should permit land to be freely transferred, otherwise it may often be cultivated by inefficient people who cannot make the best use of it.

( 6 ) It should be such as not to ruin aristocracy

who are almost everywhere very useful members of society, and at the same time such that the poor tenants are not tyrannised over by them.

If we examine the U P system in the light of the above, we find that it does not fulfil the conditions of an ideal system, and falls short of the ideal of land tenure. The Zamindar has no direct interest in the improvement of the land, for his powers to enhance rent and eject the tenant are limited by law, while the tenants who hold the land from the government cannot have full incentive to effect improvements in land, the rent of which is liable to be increased—as in most cases *fair rents and fixity of tenure* are not guaranteed to the tenant to the full extent. However, it is being attempted to approach the ideal through legislation as much as possible—vide the provisions of the Act of 1939 above.

### QUESTIONS

1. What do you understand by the term 'Rent in Economics'? How does rent arise and how is it determined?

2. What is economic rent and how does it differ from contract rent? Explain fully.

3. State the law of rent, and show how far it is applicable to India.

4. What do you understand when it is said that "rents are high because prices are high, and not vice versa"? Discuss fully.

5. Explain the statement "Rent is not an element in price".

or

Establish the proposition that rent forms no part of those expenses of production which affect price.

6. In a new colony ten acre plots of land range in pro-

ductivity from 20 to 28 maunds as shown by the diagram which covers all the land to which the colonists have access. Suppose that for each 100 of population a new plot has to be cultivated. What would be the total rent paid if the population were 900 ? 2900 ?

20	20	20	20	20	20
21	21	21	21	21	21
22	22	22	22	22	22
23	24	24	24	25	25
25	26	26	26	26	26
27	27	27	28	28	28

7. Discuss the effect of the following upon rent :—

Improved methods of cultivation ;

Improvements in transport ;

Growth of population ;

and Advance of civilisation.

8. What do you understand by "Land Tenure" ? Describe the various kinds of land tenure in the U. P., and explain the necessity of tenancy legislation.

9. What steps have been taken by the U. P. Government to safeguard the interests of the tenants within recent times ?

10 "The object of the government is to secure for the cultivators, firstly, Fixity of Tenure, and, secondly, Fair Rents."

How far has the above object been secured by the present tenancy legislation in the U. P. ?

11. Write short notes on :—

Permanent and Temporary Settlements; Quasi-rent; and Unearned Increment.

## CHAPTER 13

### WAGES

#### Wages

The term 'wages' is applied to the remuneration paid to the worker for the work done by him. Wages expressed in terms of money are *money wages*. Wages paid in the form of grain or other commodities are known as *wages in kind*. Wages paid by the hour, day, week, or month are called *time wages*. Wages paid according to the quality or quantity of work done, as in weaving, reaping crops, or digging earth, etc., are known as *piece wages*. Money wages and time wages are the most widely used systems in modern industrial economy.

There is very little difference between the terms *wages and salaries*—salaries are measured by the month or the year, wages are measured in shorter periods, as the hour, day, or week; and superior labourers are generally said to get salaries while others are said to get wages. From the economic point of view, however, highly-paid labourers and low-paid ones, all do some labour, and, therefore, all payments should be classed as wages. Even the earnings of managers in factories may be classed as wages, although most people are of opinion that they should be separately classed as earnings of management; and wages include all payments, per hour, per day, per week, per month, and per piece as well as the fees and commissions paid to lawyers, doctors, agents, salesmen and directors, though some people include only the hired labourers in the list of wage-workers and exclude from it all the

independent producers and professional people.

### Nominal and Real Wages.—

The worker receives a certain amount of money as wages from his employer. But the amount of money that he receives, or his money wage, does not often give a correct indication of his real economic position. Much depends on other factors. We must, first of all, know the period of time for which he gets employment. One man may get Rs. 800/- by joining a war service, while another may be getting only Rs. 200/- on a permanent job. The first man is earning higher wages here, but after the war he will become unemployed, while the second man is holding a permanent job and is surely more secure. Or, some occupations may be dangerous, and though a man may be getting higher wages in them, his working life may be shortened. Again, the work may not be regular, but seasonal, or the cost of living at the place may be even higher than the wages. So on and so forth. We have indeed, to take account of many factors in determining the wages of the labourers

If we merely consider the reward of labour that is received in the form of money, we are thinking of nominal wages. Real wages, on the other hand, refer to the benefits received, and are indicated by the amount of necessities, comforts, and luxuries of life which the worker can have in return for his services. Roughly the amount of money that a labourer gets for his work is called the nominal wages and the amount of things which he buys

from his wages is his real wages, e. g., with Rs 60/- a month he can buy for himself necessities for life worth Rs. 35, necessities for efficiency worth Rs. 15, and comforts and luxuries worth Rs. 10, then his nominal wages are Rs. 60, whereas his real wages are the amount of necessities, comforts, and luxuries, that he buys with this sum

To the worker what is important is real wages, for what he, as a human being, can make use of are the commodities and services and not the money. A labourer working in his farm for six annas a day may not like to go to an industrial firm in a large city even on twelve annas a day. In the village he has his house free, the prices of other articles such as grain, pulse and ghee are generally lower than in the cities, and the things that he gets are usually pure and wholesome. Perhaps, in addition to the money wages he is able to secure from the farmer some grain at the time of the harvest, and can graze his cattle free. All these mean expense of money in the cities, and on balancing he finds that six annas of the village are, after all, as good as, if not better than twelve annas of the industrial cities. Adam Smith said, "The labourer is rich or poor, is well or ill rewarded, in proportion to the real, not the nominal value of his wages." In other words still, *"the attractiveness of a trade depends not upon its money earnings but on its net advantages"*

Very often money wages and real wages go hand in hand, that is to say, the higher the money wage the larger the real wage, but as a general rule,

we have to consider a number of things before we can arrive at **real wages**:—

(1) *Purchasing power of money.*—If we want to consider and compare wages correctly, we should consider not only the wages in terms of money, but also the purchasing power of money. This differs in different places. That is to say, the price of the same commodities and services are not the same in different places, and the same quantity of money buys different quantities of commodities in different places, e. g. a labourer getting Rs. 60 a month at Meerut is much better off than a labourer getting Rs. 60 a month at Bombay. This also differs from period to period, e. g., a rupee today has much smaller value in terms of commodities than it had during the Mughal period, and we often hear it said that a person getting Rs. 50 a month then was much better than a person getting Rs. 200 today.

(2) *Regularly or irregularity of employment.*—There are certain occupations in which employment is not regular, e. g., labour in Bengal jute fields is required for a few months only in the year, sugar mills are open for half the year, artists and masons cannot work in the rainy season and war services are only for a few months or a few years, etc. etc. Here though the nominal wages of men in these occupations may be high, they are not earned throughout the year or for a long time, and this fact also must be taken into consideration in determining real wages.

(3) *Possibility of extra gains and conveniences.*—Sometimes the employer provides other conveniences,



such as a good house, free or on a nominal rent, (e g , the railway companies provide quarters free in many cases, and Cooper Allen & Co , Cawnpore provides houses to its labourers on nominal rents), or articles of general consumption at cheap rates, (e g. Currimbhoy Mills at Bombay have started a shop for selling grain, cloth etc, to their workmen at cost price), or means of recreation ( e, g , clubs and libraries and free cinemas as at Jamshedpur) Similarly, domestic servants get free lodging and frequent rewards on ceremonial occasions, railway servants get free travelling by rail and policemen by lorry, teachers get opportunities of writing books, having tuitions and going on educational tours, miners get cheap coal, civil servants get pensions and the benefit of the Provident Fund, etc, etc All these facts must be taken into consideration in arriving at real wages [ Sometimes the labourer has to incur some expenses in order to get his income A barrister has to engage the services of a clerk to help him in his duties and has to pay subscription to the Bar Association The factory workers have to pay certain sums of money in order to get their jobs, etc, etc In such cases then expenses must be deducted from the money wages of the worker before we can know the real wages Expenses of training etc should be deducted too. ]

(4) *Nature of service*—Allowance must also be made for differences in working hours, cleanliness and social position, e g , a municipal lamp lighter has to work only an hour in the morning and evening, mill labourers can find time to make

"*Bidis*" in their extra hours, and teachers get a large number of holidays, while mine labourers have to work in unhealthy atmosphere underneath the ground, butchers are looked down upon in society, and the lives of men in war service are in danger, etc., etc. Besides, in one occupation, say in Government service, there may be glorious prospects of promotion, while in another occupation the starting wage may be high, but the start may also be nearly the finish. Or, a cinema star may expect to enjoy a good reputation and very high salary for only a limited number of years—cinema actors generally become back numbers as they grow old or lose their beauty, charm or voice—, while an engineer or a doctor or a lawyer may be able to earn for a much longer period and at an increasing rate.

#### **How wages are determined.—**

We have already seen in Chapter 11 that the share that goes to any factor of production is determined by demand and supply.

Now, demand for labour depends upon the state of development of a community and its wealth. If there is enough wealth in a country its people may like to undertake a number of new things. They may build new houses and factories, dig new canals, etc; and this will lead to a demand for labour. But employers will not employ labour, if they find that the value of what they produce is less than what the labourers get as wages, that is to say, the upper limit of wages is fixed by the prospective marginal productivity of labour to the

employer. An employer having, say, 100 men in his factory knows what he could afford to pay the 101th labourer if it were necessary to employ him. He will calculate, "If I employ this man, the increase in my total output due to his efforts, i.e., to the efforts of the man employed in the last instance, (in other words his marginal productivity), would be this much I can, therefore, pay him that much as wages"

Supply of labour, on the other hand, depends upon :

✓(a) Population and willingness of labourers to work,

✓(b) Their health and efficiency,

✓(c) Knowledge, skill and training required to enable one to do a particular work, and the cost of training, etc., etc.,

All these factors are more or less influenced by the standard of living, that is, the amount of necessities, comforts and luxuries of life that the labourers are accustomed to enjoy. ("The way of life to which the labourers of any grade are accustomed is usually spoken of as their standard of living.") Naturally, labourers will not accept wages which are not sufficient to enable them to live according to their standard of living, and, on the supply side, the lower limit is fixed by the cost of maintenance of labour or their standard of living The labourer will, indeed, calculate "I require at least so much for maintaining myself or for keeping up my standard of living ; and if I get that much, I shall work, otherwise not."

Between these lower and upper limits the wages vary according to the law of demand and supply. They are high or low according as demand for labour is high or low relatively to supply. If the supply of labour competent to produce goods were small, labourers in that group would command high wages, while if the supply were large, they would command low wages. For example, matriculates and graduates get low wages because there is not enough work for them to do in relation to the supply of matriculates and graduates forthcoming to do the work, while air pilots secure high earnings because the number of men having the necessary ability to fill the post is small. Of course, if the number of air pilots were to multiply, their earnings would come down, while if the number of matriculates and graduates became smaller, their earnings would likely increase. And, in a short period demand will have a greater influence; in a long period the standard of living.

This is the modern\* theory of wages. As we shall see now, it explains why wages are different in different countries and in different occupations—Wages are higher in England than in India because the productivity of labour is low in India

---

*\*Old Theories of Wages.*—The above theory of wages is known as the Modern Theory or the Demand and Supply Theory of Wages. Economists, however, propounded other theories of wages in the past—the Subsistence Theory, or the Iron Law of Wages, the Wages Fund Theory, the Residual Claimant Theory, and the Marginal Productivity Theory. But all these theories have been discarded.

and labour is plentiful. Similarly, wages are higher in one industry than in another because the marginal productivity of workers in one, as measured in terms of the market price of the product, is greater than the marginal productivity of the workers in the other; an overseer is paid at a higher rate than a coolie, because the marginal productivity of the overseer is greater at the same time that his supply price, or standard of living, is higher.

*Note:* We have noticed above that wages depend upon demand and supply generally. We must, however, remember that in all countries the labouring population is divided into a number of groups, each group having the capacity to do a particular kind of work, and *the wages of a labourer in a group are determined by the principles of supply and demand as applied within that particular group*. Each group of labour has its own wage problem. An ordinary day-labourer cannot compete with a young man with University degrees, fresh from England to be a professor. Similarly, a shoe-maker cannot be a traffic inspector. To do different jobs labourers must have certain qualifications which depend on education, training, influence, etc., etc. [In India, the presence of caste has further limited the number of labourers belonging to a particular class. The supply of each kind of labour depends to a pretty large extent upon birth and caste, it being not possible for the son of a cobbler to become a weaver, for a weaver to become a goldsmith and for the son of a

goldsmith to become a sweeper. Of course these restrictions of caste are now gradually breaking down. ]

### **Peculiarities of Labour.—**

We have seen above that wages are determined in very much the same way as the values of commodities. But, because labour has certain peculiarities which tell upon its supply and demand, we must describe these and their effect upon wages before we leave the subject of the determination of wages. The following peculiarities are worth noticing :—

(a) *Labour is embodied in the labourer*, and cannot be separated from him. He must deliver it personally. Therefore, he is interested in the type of work in which his labour will be used. It is immaterial to the motor car or to the motor car seller where the car is placed after it has been purchased, or how it is run. For the labourer, however, it is very important to know the conditions in which he has to work. [ This is why factory laws have to be passed to improve the conditions of life of the labourers, and this is why labourers are found moving from place to place or profession to profession. ]

(b) *Labour is perishable* — A day's labour lost is a day's labour gone. A labourer cannot regain his labour if he remains unemployed for a certain period. He cannot store his labour to be used at some future date. A person who does not work today may perhaps be able to work twice as much tomorrow, but beyond this, it is not possible to store

labour, while a merchant may not sell his goods for a month and may yet be none the worse for it. The labourer is, indeed, like the seller of a perishable commodity. Just as the seller of a perishable commodity cannot retain it for a long time, and is forced to sell it at reduced prices for fear of its completely losing value, similarly, the labourer cannot afford to be unemployed for any length of time. Like time, labour power is lost for ever, and cannot be recalled. Besides, the labourer requires some articles for consumption and use. He cannot wait. And so he has very often to accept wages which are very much lower than what he should receive for his labour. [ This is a great drawback, and labourers cannot bargain on fair terms with their employers, and this is why we need trade union organisations to provide necessities of life to the labourers during the period of strikes ]

(c) *New supplies of labour are but slowly obtained*—Additional supply of labour can only come when the population grows, and training is given, and this takes time—the parents will calculate the profitableness of a particular industry, and will put their children in various trades according to their estimates, etc., etc. Another way to increase the supply of labour in any trade or industry is to increase the mobility of labour, but as we shall just see, there are so many hindrances to mobility also. Similarly, the reduction of an available supply of labour is equally difficult, painful, and slow. [ As a result of this peculiarity of labour, it takes a pretty long time to adjust the demand for and supply of

labour, particularly in the case of highly-skilled or highly-qualified labour. ]

(d) Worker sells his work but retains property in himself. For example, a teacher does his work as a teacher, but does not lose his ability—in fact, the more he teaches, the abler and more experienced he becomes. This is quite all right. But there is a defect in this—namely, it can never be in the interest of the entrepreneur to train and improve labour, since the effects of such improvement may not come to him—the trained worker may leave him and move away to some other business or employer. The labourer has to be persuaded to take up work.

(e) Of all commodities, labour is the most difficult to move, and the problem of mobility of labour arises on account of this, so on and so forth.

All these peculiarities reflect upon the demand and supply of labour and we can see how the rates of wages are influenced by them, why wages in an occupation for a long time remain above or below the demand price, and why wages differ from place to place and industry to industry.

### **Mobility of Labour.—**

By mobility of labour we mean the movement of workers with ease and promptitude from one direction to another. It may be of several kinds:—

(a) *Geographical or place mobility.* that is, the movement of labourers from one place to another, e.g., a Punjabi carpenter working in the United Provinces, a U.P. labourer going to work in the jute fields of Bengal or the tea gardens of Assam, or a Ceylonese or Burmese coming over



to U. P. to take up service.

(b) *Horizontal or professional mobility.* that is, the movement of labourers from one profession to another, e.g., a weaver in a cloth factory moving on to a jute factory, or a woollen factory in the same position, or a stenographer moving on from one employer to another.

(c) *Vertical mobility,* that is, the movement from a lower grade to a higher grade in the same industry or in another industry, e.g., a motor car cleaner becoming a motor driver, a cotton mill labourer becoming the manager of a hosiery factory.

(d) *Social mobility,* that is, moving from one occupation to another of a different social grade, e. e., a farmer becoming a lawyer or a butcher becoming a teacher, there being a difference in the social status of a farmer and a lawyer, and of a butcher and a teacher.

The mobility of various kinds of labour is very necessary for a better adjustment of the supply of various kinds of labour to the demand for them. *If mobility of labour is perfect, wages tend to be equal in different places and in different industries.* Says BENHAM: "If every worker could readily find employment in whatever occupation he pleased, the 'net advantages' of all occupations would tend to be equal."

*Example.*—If cotton workers of Bombay are paid higher wages than cotton workers of Cawnpore, it can be concluded that there is a comparative over supply of labourers at Cawnpore and under supply at Bombay. If some labourers of Cawnpore

move to Bombay, that will increase the supply of labourers and reduce their wages there, while the decrease in the supply at Cawnpore will raise the wages here. And if there is perfect mobility between these two towns, the rate of wages should be equal at both the places. The same thing holds good in the case of different industries paying different wages. If the woollen trade gives higher wages than the cotton trade, labourers will move from the cotton to the woollen trade, there will be more labourers in the woollen trade and less in the cotton trade, and an equality in the wages will be established.

In actual life, however, mobility of labour differs in different countries, in different occupations, and at different times within the same country. For example, there is less mobility of labour in India than in other countries (the number of Indians living in foreign countries is only 2% of the total population of India; even within the country there is less movement of labour from place to place or occupation to occupation—India is an agricultural country and the farmers, being wedded to the soil, are less mobile), and all sorts of labourers are more mobile today than they were formerly.

*The reasons why Indian labour is less mobile are as follows :—*

(i) About three-fourths of the population consists of agricultural classes, and their profession is such that they cannot easily move from one place to another. Before changing his place a cultivator

must acquire land, and study the different methods of crop production on that land to which he proposes to migrate. The practical difficulties in his way are so many.

(ii) The cultivator in India is also very conservative, and does not like to change his profession for some other more paying profession, even though he may be starving in his own profession. He lacks a spirit of adventure. He is contented and has too much reliance on God and Fate. These things do not permit him to change his place or profession.

(iii) Caste system which is a special feature of Indian society also makes labour partially immobile, e g., a sweeper cannot take up the work of a Brahmin, and a Brahmin of the U. P. would not take food cooked by anybody in Madras or Burma. Foreigners come to India and find no inconvenience in the matter of food, etc., which they can have at any hotel, while many Indians give up the idea of going to foreign countries because they cannot get Dal and Chapati cooked by a Brahmin there.

(iv) The Indian labourer is strongly tied to his native place, and his family attachments and social ties prove sometimes too strong to be shaken off, and he does not care to go out at any distance from home.

(v) The masses are mostly ignorant and illiterate, they do not even read newspapers, and they are seldom aware of the opportunities of employment.

(vi) The general poverty of the people, lack

of adequate and cheap facilities of transport, absence of a common language, different geographical conditions, different social customs of different lands, and lack of housing accommodation in the industrial centres are some of the other hindrances to mobility of labour in India.

But *the environments are changing.* The conditions are not the same as obtained half a century ago. Many of the above mentioned causes have lost their importance. Caste system no longer holds its universal sway over the people, and social customs generally have ceased to be as great a hindrance as they used to be. Moreover, the introduction of improved facilities of transport and communication together with the opening of new avenues giving better employment by the development of large-scale cotton, jute, coal, iron, and tea industries, and the increasing pressure of population on land, etc., etc., have all helped to make labour much more mobile in India today than it was a few decades ago. Thus we find today that competition has reached the most distant villages of the country, and there is a periodical migration of labourers from one part of the country to another, e.g., labourers from U.P. and other provinces work in the tea gardens of Assam, carry on rice cultivation in Bengal, coffee plantations in Ceylon, and rubber plantations in Burma; Punjabi carpenters and other artisans work in U. P., agriculturists are seen becoming manufacturers and lawyers becoming teachers; Brahmins are found taking up the trade in leather and shoes, etc., etc.,

### Standard of Living and Wages:—

Standard of living affects wages in two ways. Firstly, on the supply side, *it puts a check on the growth of population*—a labourer with a standard of life will seldom marry or have children unless he can secure for his family at least that standard:

“Among the better classes of artisans there is a marked tendency to delay marriage and limit the number of children, so that conditions of respectability may be maintained. But where the standard is very low we find that hopelessness and carelessness as to the future tend to make the average family comparatively large, and, as a result of this, very low rate of wages perpetuates itself.”

Thus we see that the standard of living determines whether the population shall be large or not. In other words, it determines the supply of labour. A high standard of living means fewer births, a smaller supply, and better wages; a low standard of living means a large supply, and lower wages [Also, labourers with a good standard of living have a bargaining power. They can withhold their labour or, in other words, refuse to work, unless they get the wages necessary for their standard of living.]

Secondly, on the side of demand *standard of living affects efficiency*. The higher a man's standard of living, the more nourishing food he will have, the better clothing, the better housing conditions; and all these things improve the physical and mental alertness of the working man and resist the effects of fatigue. (Also, leisure for intellectual

and spiritual development, freedom from worry and anxiety, a hopeful prospect of social advancement for his children all contribute to labourer's effectiveness as a producer.) The result is that the labourer's efficiency becomes greater, his productivity improves, and the employer becomes willing to give him a higher wage.

Thus we see that standard of living plays a very important part in the determination of wages. The rate of wages, in its turn, has also a great effect on the standard of living—the higher the wages, the higher becomes the standard of living. For example, the standard of living in India is low, and wages are also low; the standard of living in England is high, and wages are high, too. And because wages are high in England, the standard of living there is high, while the wages are low in India and, therefore, the standard of living is also low.

### **Efficiency (or Productivity) and Wages.—**

There is also an intimate relation between efficiency (or productivity) and wages. Wages are determined by the demand for and supply of labour, and the demand price for labour depends upon the marginal productivity of labour. That is to say the maximum the employer will at any time pay for a labourer depends upon the addition in the output caused by the labourer, the addition in the out-put naturally depending upon efficiency. Thus the more efficient a labourer is, the greater will be his productivity, and the higher will be his wages. And we can say that demand for labour

depends upon efficiency or productivity

Not only are wages determined by efficiency, but they also influence efficiency, and that is why we often hear the phrase "*economy of high wages*". When wages are high, the standard of living of the labourers naturally becomes high, and higher standard of living brings about greater efficiency, and enables the labourers to work with a feeling of satisfaction, loyalty and devotion. Low wages, on the other hand, lower the standard of living and bring about inefficiency and a feeling of unrest which is so harmful to the continuous and successful conduct of industrial production. Thus high wages and efficiency go together, and if wages are raised, greater and greater efficiency must follow—when once the wage rate of the low paid worker has been raised, he automatically becomes worth the wage and then wages and efficiency both go on increasing, one after the other. Unfortunately, wages in India are extremely low and the natural consequence is low efficiency or productivity. Indian labour is low paid but dear because their efficiency is so low.

### **Social Customs and Wages —**

A third factor that has a great effect on wages is the social customs, like the caste system in India. They affect wages and efficiency by influencing supply, by restricting mobility of labour and by standing in the way of competition. For example, sweepers and washermen die and their numbers decrease. Others cannot join the work of these workers. The result is that the wages rise without an increase in the labourers' efficiency. Similarly joint

family system prevents a man from going out and stands in the way of mobility of labour. Early marriage system increases the birth-rate and lowers the standard of living. And social customs, like expenses on occasions like births, marriages and deaths reduce the amount of necessities, comforts, and luxuries available to the labourer, and thus affect his productive efficiency.

Custom was the chief regulator of wages in India till the middle of the last century, but gradually competition is finding its way in the villages. However, even now custom is the regulator of wages in India to some extent; and labourers in villages are sometimes paid only grain as wages, and sometimes cash wages are accompanied with customary amount of food, tobacco, clothing, etc.

### **Causes of differences in wages**

We have now seen how wages are determined and what the various factors that influence wages are. Let us now sum up various causes of differences in wages :—

#### **(a) Why wages differ in different occupations.—**

In comparing the relative rate of wages in different occupations we must first be sure in our minds if we are talking of nominal or real wages. What is important to the worker is his real wages and not his nominal wages, and it is very possible that while nominal wages may be equal in two occupations, the real wages may differ considerably, or the real wages may be equal while the nominal wages differ. But if the real wages in different



occupations differ this must be attributable to a lack of perfect mobility

In all countries the labouring population is divided into a number of groups, each group having the capacity to do a particular kind of work, and the wages of a labourer in a group are determined by the principles of supply and demand as applied within that particular group. For example, they are divided into four groups (i) the common day-labourers (ii) the semi-skilled workers and artisans, (iii) the skilled workers and educated group of clerical workers, and (iv) highly qualified professional men like lawyers, engineers, doctors, men of high business ability and men of high executive capacity. These various groups are generally called *non-competing groups* of workers in the society, because labourers of one group can hardly compete with the labourers of another group because of expenses of education and training, the subtle influence of environment and differences of inborn gifts. Besides, some jobs are obtained through "influence", and in others, such as selling of insurance or shares or expensive cars, a personal knowledge of rich people is an asset. In such cases the child of well-to-do parents begins life with a great advantage. In any case each group of labour has its own wage problem. An ordinary day labourer cannot compete with a young man with university degrees fresh from England to be a professor. Similarly a shoemaker cannot be a traffic inspector. (In India, the presence of caste has further limited the number of labourers belonging to a particular class. The

supply of each kind of labourer depends to a pretty large extent upon birth and caste, it being not possible for the son of a cobbler to become a weaver, for a weaver to become a goldsmith, and for the son of a goldsmith to become a sweeper.) Naturally, wages of different groups must differ; and there is no such thing as a general rate of wages in modern civilisation.

However, there are certain other causes to which differences in wages (nominal wages, to be more exact) may be attributed:—

(i) *Agreeableness or disagreeableness of different occupations.* Agreeable occupations are more attractive, and, therefore, command a lower rate of wages than those not agreeable. 'The butcher is paid more than the baker', ADAM SMITH. (On this analogy, no doubt, sweepers must be paid the highest wages, while they actually get the lowest. The special reason for this is that the sweepers in India have not the option to take to any other work. They cannot but be sweepers. In other countries, however, their wages are higher.)

(iii) *Ease or difficulty of learning the business.* Occupations which require greater difficulty, or longer time, or higher expenses, in learning must command higher wages than others. The barrister's wages are higher than the clerk's. The heavy expenses involved in becoming a bar-at-law, and the long period of time required, explain the shortage of barristers in comparison with clerks.

(iv) *Regularity or irregularity, and security or insecurity of employment*—Irregularity or incons-

tancy of an employment makes wages higher A labourer in a sugar factory must get higher wages because the factory works only for half the year, and, similarly, a labourer required only for the period of war has to be paid higher wages than labourers on permanent jobs

(v) *Responsibility or irresponsibility of the occupation*—Responsible workers are generally paid higher wages than those who are not responsible

(vi) *Certainty or uncertainty of success*—Where there is greater risk in success, the reward for success will also be relatively higher.

(vii) *Social esteem or dis esteem*—Positions which carry social esteem or influence, carry low wages, or may even be done honorarily, e g, the work of a municipal board chairman or of an honorary magistrate, while the work of a hangman (executioner) having a social dis-esteem attached to it must be paid sufficiently well to attract people to do the dirty work

In short it may be said that *inequality of wages is due either to inequality in work or to immobility of labour.*

(b) *Why wages differ in the same occupation* Not only do the wages of labourers in different occupations differ the wages of labourers in the same occupation also differ from person to person and place to place This is because of the following additional reasons:—

(1) *Difference in efficiency or productivity*—Some labourers are efficient and have greater productivity, while others are inefficient and have

smaller productivity. Naturally the former get higher wages than the latter. For example, an English labourer produces more than an Indian labourer and gets higher wages. Similarly, an overseer gets more than a coolie because the value of his net product in the market is greater, etc., etc.

(ii) *Conditions of supply*—Where labour supplies are comparatively plentiful, wages tend to be low; where there is scarcity of labour, wages tend to be high. The supply of labour, however, depends, in its turn, on the standard of living of the people and their readiness to move from one place to another i. e. place mobility.

(c) *Why wages of men and women differ.*—The wages of women as a class are generally lower than those of men, because in most cases women have not the strength and endurance of male labourers, or enough of education and training, and thus are less productive. But it has been seen that even where women are of equal strength and ability, they do not get wages equal to those of men, e. g., Bikaneri women labourers are in certain respects better workers than men and yet their wages are smaller. This is due to the fact that *custom and lack of education prevent them from entering the labour market on the same terms as men*, and they have little or none of organisation. For example, in some towns of India a considerable number of purdah and non-purdah women are found to do sewing work, e. g., making *kurtas*, stitching *lihafs*, etc., and though their work is in no way inferior to the work of men, the wages they receive are much lower. This is due to

the feeling of helplessness and weakness characterising female labour, and to the *lack of organisation*. Another reason still for the low wages of women labourers is that they have confined their activities in a limited field and as their number is large, in spite of an appreciable proportion of them never wanting employment the wages are brought down more than in the case of men, for whom a much wider field of employment exists—e. g., in fighting services, and in heavy industries like iron, men only are employed. Lastly, women labourers have seldom to support families like men and their cost of maintenance is lower.

### Trade Unions and Wages —

A Trade Union has been defined as “*a continuous association of wage earners for the purpose of maintaining or improving the conditions of their employment*”. It is an association of workers in the same or allied trades, which collects funds from its members and applies them, firstly, to support those of its members who cannot obtain employment except on terms which are contrary to the general trade policy of the union, and secondly, to grant certain benefits to members in need. The aims of the union generally are (a) the increase of wages (b) the reduction of the hours of labour, (c) the securing of better conditions of work for labourers, and (d) the defending of the individual labourers from arbitrary and unjust treatment by the employers. And the method used by them is the method of strike.

Trade Unions are a necessary thing in

modern industrial life. Capitalists are in a better position to dictate terms than the labourers, because, as we have already read, labour is perishable, and the labourers are unable to bargain with the employer on fair terms, because of this weak position.

The only way in which the labourers can compete successfully is to organise trade unions and to replace individual bargaining by collective bargaining. Trade unions actually claim to do so, and there is some truth in this statement. But the power of unions to raise general wages is not very great. They can raise wages upto the point of marginal productivity of labour, but if they attempt to force up wages higher than this, they will not be successful, for the employers would rather stop production than pay beyond the produce. However, they can raise the wages of a particular trade by restricting or limiting the supply of labour in that trade; but even this is subject to certain conditions ( 1. That there is no alternative method of obtaining the commodity, i. e. no new group of workers can produce it. 2. That the demand for the commodity is not very elastic—if the demand is elastic, a higher wage would mean higher price, smaller demand, and lower income to the employer who may have to think of stopping production. 3. That wages form only a small proportion of the total expenses of production of the commodity, for in this case alone a rise in wages may be possible without a rise in price. 4. That the other classes of workers in the trade are squeezable, or at least are not in a position to secure for themselves an

increased share of the price of the joint product by limiting artificially the supply of their labour and capital) Besides, even this rise in wages can not last long, unless the rise is accompanied by increased efficiency

Formerly trade unions were considered unlawful in India and existed only as secret societies. But they have now been legalised. There are about two hundred registered unions already with a membership of five lakhs. About half of these unions however, have been formed by government servants and railway employees, while the movement has not made much headway in the manufacturing industries. There are many difficulties in the way of progress of these unions—the floating character of labour, their illiteracy, their extreme poverty, the diversity of races and languages, the absence of esprit-de-corps, etc., etc., and so far the trade union movement in India has not acquired a very strong hold on the members.

### **Factory Legislation —**

The Government also from time to time takes measures to improve the conditions of industrial labour. For example, the Government of India has passed Factory Acts, Mine Acts, Workmen's Compensation Act, Trade Disputes Act etc., etc. *The present effect of factory acts in India is as follows —*

(a) Labourers cannot be made to work in the factories for more than 54 hours a week. Working hours per day cannot be more than 10 above ground and 9 under ground. One hour in a day

must be observed as rest, while one day in the week must be observed as holiday.

(b) No woman is to be employed during night or underground in mines.

(c) No child can be employed in any factory unless he is certified to have attained the age of fifteen and to be fit. And no child can be put to work for more than 5 hours a day.

(d) If some labourer meets with an accident in the discharge of his duties, and loses his life or limb, the employer has to pay a certain sum as compensation for this loss. etc., etc

### QUESTIONS

1. Explain the meaning of real wages and nominal wages, and exemplify your answer by reference to the wages of a mason, a domestic servant, and a police constable.

2. Do you agree with the statement that wages are determined in a similar manner to the price of commodities ?

3. How far are wages determined by efficiency or productivity of labour ? What effect has the standard of living on the determination of wages ?

4. "Many businessmen are coming to learn the economy of high wages, and to recognise that cheap labour is dear labour." Bring out clearly how high wages mean economy, and how low wages mean waste.

5. How far do you think Indian social customs prevent wages from rising and falling in accordance with the efficiency of the labourer ?

6. Explain 'mobility of labour.' Give an idea of the degree of mobility attained by (1) the Indian cultivator, (2) the Indian labourer, and (3) the Indian artisan; and give reasons for the state of affairs. What would be the effect on the rate of wages, if there obtained complete mobility of labour ?

7. "A considerable portion of the village labourers in



Northern India prefer 4 annas a day in their own village to 7 or 8 annas a day in a big city Can you explain why this is so ?

8 'The attractiveness of a trade depends not on its money earnings but on its net advantages" Discuss this statement fully.

9 What causes give rise to differences in wages in different occupations in India ?

Can you explain why there is a difference in the earnings of (a) domestic servants, (b) University teachers, and (c) Public employees ?

10 Explain —

(a) Labour is perishable.

(b) Wages tend to equal the marginal net product of labour

11 Write notes on :

(a) Trade Unions in India.

(b) Factory Legislation in India

•

---

## CHAPTER 14.

### INTEREST

#### **What is Interest.—**

Interest is the price paid for the use of capital. It is the income which capital returns to its owner whether he lends it, or employs it himself in his own business.

#### **Gross Interest and Net Interest.—**

The interest of which we speak when we say that interest is the earnings of capital simply, is net interest; but what commonly passes by the name interest includes other elements besides this and is known as gross interest. The term **Gross Interest** is applied to.

(a) *Payment for the use of capital alone*, that is, assuming that there is no risk of losing the capital, and no inconvenience, work, or worry involved in getting it back. For example, when a person gives a loan to the Government the interest received is only for the use of money by the Government, because there is no (or very little) danger or risk involved, and hardly any cost of book-keeping and correspondence, or work, or worry. (This is known as **Net Interest** But when to this are added some or all of the payments mentioned below, it becomes **Gross Interest**.)

(b) *Payment to cover risks*: It very often happens that the borrower turns dishonest and runs away with the loan, and, therefore, the lender, in addition to the return for the use of capital alone, demands something as an insurance against the possible loss of capital due to insufficient security.

(c) *Payment for the inconvenience of the investment* Sometimes the lender has also to run after the debtor to realise his money which somehow gets locked up for a long period, and naturally he demands an additional payment for this inconvenience and trouble.

(b) *Payment for work of book-keeping, keeping a watch over the investment, etc.* In case the lender incurs a great deal of expense, or has to put in work in order to watch his investment, he is likely to demand payment for such expense or service also.

These payments combined are called **gross interest** but if from these we deduct the expenses of the (b), (c). & (d) kinds whatever is left will be called **net interest**. In other words, if we consider only the payment mentioned in part (a) above it will be called net interest.

**Why is interest paid —**

*Interest is paid because capital is productive.* This service of capital in production is rewarded by a share in distribution in the form of interest.

Interest was condemned by all early writers and in all ancient communities—because loans were taken for consumption purposes (e.g. for purchasing food and clothing, etc) by the most needy people in society. It bore heavily upon them with their poor income and was, therefore, condemned. In our times, most loans are for productive purposes, and the producer who borrows capital at 5% utilises it profitably to make a gain of 10% with it; and so it is perfectly justified. In fact, modern industrial development is based upon the system of borrowing

and lending capital. However, even now attempts are from time to time made by governments to prevent the undue oppression of the needy by the money lender.

### **Why is interest demanded.—**

Interest is demanded because the lender has to make some sacrifice in abstaining from immediate consumption of capital and lending it for future use or enjoyment. It is, as some persons put it, the payment which a man requires in order to equate future with present satisfaction. For example, if a person is given the choice of Rs. 100 now or the same sum a year hence, he would choose the payment in the present. In order to induce him to accept the sum a year hence he must be offered, say, Rs. 105. *Interest is, in fact, the price paid for waiting.*

### **How is interest determined.—**

The rate of interest is the price of capital and is determined by the relation of demand and supply. There is a supply price of capital and there is a demand price for capital. When these two prices equalise, the rate of interest is determined.

The supply price of capital is determined by the marginal forbearance or marginal abstinence—i. e., the sacrifice and hardship involved in saving or in putting off the present enjoyment to the future. And the demand price of capital is determined by the marginal productivity of capital. Supply depends upon the capacity of the people to save—i. e., upon their surplus over expenditure; upon their will to save—family affection, love of power, foresight;

and upon the security of life and property, methods of safe investment, presence of banks, etc., etc. And demand depends upon the volume of trade and industry in the country, and the needs of the government.

*There is a close relation between the rate of interest and the supply of and demand for capital:*

Supply of capital large	Interest low
Interest low	Supply small
Supply small	Interest high
Interest high	Supply large

and so on

Demand for capital large	Interest high
Interest high	Demand small
Demand small	Interest low
Interest low	Demand large,

and so on.

This action and reaction is always going on in the market. And at a point where supply is equal to demand we have the market rate of interest.

Let us suppose that on a certain date the conditions of demand and supply are as follows:—

Rate of Interest	Demand for Capital	Supply of Capital
12 per cent	1 crore	10 crores
9 „	2 „	8 „
8 „	3 „	7 „
7 „	4 „	6 „
<b>6 „</b>	<b>5 „</b>	<b>5 „</b>
5 „	6 „	3 „
4 „	7 „	2 „
3 „	8 „	1 „

We find that at 6 p. c. the supply of capital and demand for capital are equal, whereas at other rates they are unequal. Therefore, 6 p. c. is the market rate of interest. At any other price above the market rate, supply exceeds demand. Excess of supply tends to bring the rate down to the equilibrium price. Similarly, for any price below the market rate, demand exceeds supply. Excess of demand tends to push the rate up to the equilibrium price. And we can say that the rate of interest depends upon the demand for and the supply of capital.

*Note . Net interest has a tendency to fall with the growth of civilisation.* Savings of the people go on increasing from day to day, and the supply in relation to demand goes on increasing. Some people even think that there is every possibility of the rate of interest falling to zero, due to saving, as also due to over-investments, and the operation of the law of diminishing returns in production in the future. This may be so in theory; but the actual conditions of the economic and business world point out the inaccuracy of the statement. However fast the accumulation of capital may be, it will always be outstripped or at least counter-balanced by new investments in the future which will open fresh fields for the application of more and more capital.

#### **Why rates of interest differ.—**

If there is perfect competition in the market, the rate of interest ( net interest ) must be the same everywhere. Whenever there is a rise in interest anywhere, the rise must attract capital

from abroad, and consequent increase in the supply there, and scarcity elsewhere, must equalise the rate of interest in all parts of world market. But just as there is the immobility of labour, there is also the immobility of capital and that does not permit the free movement of capital from country to country or industry to industry. Subject to this condition **net interest tends to be the same everywhere**

However, this is not the case with gross interest. Different rates are charged on different types of loans. What are the causes of these differences? Why is it that the government can borrow money by paying interest at 3 p c while the poor cultivators have often to pay 15 p c or more? Some of the causes which bring about **differences in (gross) interest** are —

(a) *Degree of risk taking*—Private money lenders advance money on personal security, while banks insist on proper security. Naturally, the former charge a higher rate of interest than the banks—the greater the risk, the higher the rate of interest.

(b) *Cost of collection of the loan and the inconvenience, work and worry involved* also differ in different cases, and, therefore, the rates of interest also differ.

(c) *Period of loans*—the longer the period, the greater the risk, the higher the rate of interest and the shorter the period the lower the rate of interest.

(d) *Rates also differ from season to season*—The

rate is higher in the busy season than in the dull season, particularly so in India, where the currency system is not quite elastic etc., etc.

If we bear these points in mind we can at once find reasons for the high rates of interest charged by the money-lender from the ryot or the farmer :

(a) The loans are often given on unsound security, and it is sometimes difficult to get back the capital altogether. The security offered is the produce of the land, which is absolutely uncertain, success depending more on natural factors.

(b) Capital is mostly borrowed not for productive purposes but for consumption purposes, e.g., in marriage, *Shradh*, *Bhat*, etc., and, therefore, the repayment of loans is not made from the surplus resulting from productive use of capital, but from other sources. Naturally capital gets locked for an uncertain period, and recovery becomes difficult.

(c) The farmer is known to be a person of narrow means, extravagant habits, and extremely unpunctual in the matter of paying back the loan.

(d) There is no banking organisation in the interiors of the country where money-lenders carry on their business, and consequently there is no competition. The village farmer is not in a position to borrow from anywhere else, and is at the mercy of the money-lender.

The only way by which the rates of interest can go down, and relief can come to the cultivator is the extension of banking facilities to the villages, and, above all, the formation of Co-operative Credit Societies in larger numbers. Already their influence is being felt in the villages and the rates of interest have slightly gone down.

[ For a detailed discussion of Co-operative Societies, see the footnotes in the chapter on Banks and Banking from page 168 to page 177 ].

### **Peculiarities of Interest in India:—**

1) The rate of interest in India is higher than that in England or other industrial countries of



India being an agricultural country the demand for money is concentrated during those periods when crops are harvested. There are two crops in India, namely *Rabi* and *Kharif*, which are ready respectively during the months of April and May, and the months of October and November; and this is also the period when marriages mostly take place in India. Naturally the demand for money during these short periods is great and the rates of interest are high as compared with the rates in other parts of the year. Another reason for this disparity in the rates during the busy and slack seasons is that the system of banking and currency in the country is not quite elastic.

In a word, there is **little mobility of capital in India**. Capital does not freely flow into productive channels, or move from place to place or industry to industry. On account of the general backwardness and poverty of the people, savings have been slow and inadequate; and whatever capital we have is either unproductively hoarded or buried in the bowels of the earth, locked up in jewellery and buildings, or frozen through a purchase or mortgage of land which appeals still to the people, as it seems to give them an air of superiority and high status in society. Besides, people are very conservative and are not prepared to give up agriculture and join a more paying profession.

*Environments are, however, changing.* People are beginning to appreciate the advantages of saving and investment, and capital is becoming more and more mobile, as is shown by the increase in

the number of branches of various banks, Government loans, share markets, insurance companies, cotton and jute mills, steel concerns, sugar mills and factories, cigarette and match making factories, etc. What is needed is more banking facilities and a sound system of currency.

However, of late the people have begun to appreciate the advantages of saving and investment. *During the last twenty-five years, capital has become more and more mobile*, as is shown by an increase in the number of branches of various banks, government loans, share markets, life assurance companies, sugar mills and factories, cotton and jute mills, steel concerns, cigarette factories, etc, etc

What is needed is more banking facilities, including industrial banks, successful joint-stock companies and a sympathetic policy of the Government.

### **Interest and Rent.—**

#### *Difference.*

(a) With the progress of society capital tends to increase and consequently interest tends to fall. But as land is limited, rent tends to rise with the growth of population. Thus the former tends to fall with economic progress, while the latter tends to rise with economic progress.

(b) The rate of pure or net interest tends to equality whereas rents differ considerably according to differences of fertility and situation.

(c) Rent does not enter into price ; interest does so and plays an important part in the cost of production, for we may conceive of a no-rent land but cannot assume that a certain portion of capital is unproductive or useless.

(d) Interest affects the supply of capital ; rent does not affect the supply of land. The latter is more or less fixed by Nature.

### Interest and Wages.—

Gross interest may differ from place to place, from time to time, and from person to person ; but net interest is practically the same. It is due to the fact that capital is becoming more and more mobile. In fact, with the advance of society and the development of joint-stock companies, and stock exchanges, it is likely that one rate of interest may reign all over the world

But such is not the case with the rate of wages. The market for labour is not so wide as that of capital. Labour is not so mobile. Supply and demand cannot be adjusted so quickly as in the case of capital. It takes years to increase or decrease the supply of labour. Hence the rate of wages differs from place to place, time to time, and person to person, according to the demand and the bargaining capacity of both parties.

### QUESTIONS.

1. Distinguish between net and gross interest, and account for the disparity between them.
2. Define interest. How is it determined ? What are the peculiarities of interest in India ?
3. What are the conditions for the growth of capital in

a country ? Illustrate with special reference to India [See chapter on Capital]

4 The rate of interest depends upon the demand for and supply of capital " State what factors determine the demand and supply of capital respectively

5 Point out the causes of the prevalence of very high rates of interest in Indian villages What measures would you propose for lowering the rate of interest in rural India ?

6 What is meant by mobility of capital ? What are the causes which hinder the mobility of capital in India ? What remedies would you suggest for the same ?

7. Why is the rate of interest, as commonly understood, different from place to place time to time, and person to person ?

8 An U P farmer borrows from the Mahajan at 15%, a merchant in Aligarh at 9% from the Bank, and a London businessman at 5% in the London Money Market Explain the differences in the rate of interest

9 What are the causes of rural indebtedness in India ? How far have the cooperative credit societies succeeded in solving this problem ? [ See chapter on Banks and Banking ]

---

## CHAPTER 15.

### PROFITS

#### What is Profit.—

When production was simple organisation was not considered as a 'separate factor of production, but the functions of the *entrepreneur* under modern conditions are of first-rate importance for the following reasons :—

(a) Large scale production means that a large number of labourers are to work with a large amount of capital ; and land, labour and capital have to be brought together and managed in the best possible way. This is not possible without somebody at the head.

(b) Modern business involves many risks. Production is carried on in anticipation of demand, and there is a big gap between the commencement of the production of a commodity and its reaching the hands of the consumers. During this period so many unforeseen things may happen. There may be a shortage in the supply of raw materials. Fashion or custom may change. Competitors may enter the market. Substitutes for commodities may be found. New inventions may be made. Labourers may go on strike. Forecast of the other factors of production may not come right.<sup>6</sup> The Government may impose some new duty. Or, there may be political unrest in the country, and even natural calamities, like fire, water, or earthquake may make their appearance. In short, risk is inevitable ; and there must be somebody who is willing to take risk.

Thus the *entrepreneur* has to discharge two important functions in modern industrial life. He manages or organises the business, and also takes risks. For these services, he has to be paid, and *profit is the price paid for the services of the entrepreneur in production*. The part of profit that he gets in return for organisation or management is generally known as *earnings or wages of management*, and should more properly go under the heading "Wages"; while the part that he gets in return for taking the risks of business is known as *compensation for risk, or reward for enterprise or profit*. [ In fact, if there were no payments in the form of profit, many useful and productive enterprises would have remained un-started. It is the attraction of earning enormous profits which enables people to risk their all in production, and hence, the payment of profit is a necessary item in the economic system of today.]

### What is Gross Profit.—

In common language, however, when we speak of the profits of an entrepreneur, say, during a particular period, we mean the excess of prices which he gets over and above his expenditure for the amounts sold during that period; that is to say, the amount which remains with him when he takes away his expenses of production from his total income.

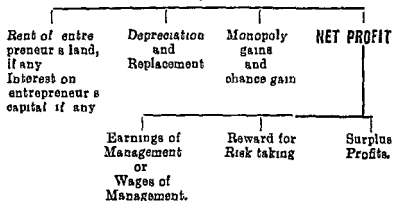
"Profits are a surplus over and above the expenses of production."—*Ely*.

The term so understood means *gross profit*,

and is not simply the earnings of management or the reward for enterprise that have been referred to above, but a mixture of many other receipts, too, which cannot be said to be in any sense directly due to the entrepreneur. For example, in many cases, entrepreneurs provide themselves with a part, or the whole of their capital, and also land, then the income which they will receive in return for the use of their capital and land, though these should properly go to the headings interest and rent, would also be included in the term 'profit'. Similarly, it will include the depreciation and maintenance charges which, if business is to continue, must form a part of cost of production and be set aside for renewal or replacement of capital when it becomes worn out and obsolete. And again it will include some extra-personal gains due not to the business ability of the entrepreneur, but through a lucky stroke or chance, e. g., due to a sudden outbreak of war there may be a rise in prices, or an unexpected announcement regarding the holding of a royal *darbar* may mean a very much increased demand for a number of commodities, or the failure of America's cotton crop, say, may give an extra profit to the growers of cotton in India, without any special effort on the part of the entrepreneurs there. Evidently if we want to find out the true or pure or net profits we have to make allowance for all these. It is only when these have been deducted from the gross profits, that we can know the net profit.

Gross profits may thus be analysed as follows:—

## GROSS PROFIT



[ When we talk of profit in Economics we mean pure or net profit only, which, however, according to some economists includes both reward for risk-taking and surplus profit, and according to others only one of the two. ]

**What is Net Profit ?**

**How is it Determined ?**

As we have just seen, Net Profit is made up of three parts —

(i) *Wages or earnings of management* — Large scale production means that a large number of labourers are to work with a large amount of capital, and land, labour, and capital have to be brought together and managed in the best possible way, which is, of course, not possible without somebody at the head. In modern industrial life the entrepreneur does this work. He manages or organises the business, and he must be paid some price for these services, and this price is known as the wages or earnings of management. ( Some economists however, put this under the heading Wages )



(ii) *Compensation for risk or reward for enterprise ( Normal Profit ).*—Modern business also involves many risks. There may be a shortage in the supply of raw materials. Fashion or custom may change. Competitors may enter the market. Substitutes for commodities may be found. New inventions may be made. Labourers may go on strike. Forecast of the other factors of production may not come right. The Government may impose some new duty. Or, there may be political unrest in the country, and even natural calamities, like fire, water, or earthquake may make their appearance. There must be somebody who is willing to take these risks; for the landlords will have their rents still, labourers their wages, and capitalists their interest. It is the entrepreneur alone who takes these risks, and he must get some compensation for these risks, or, in other words, some reward for his enterprise.

(iii) *Surplus Profit*.—Sometimes in addition to the wages or earnings of management, and the compensation or reward for enterprise, some entrepreneurs get also some surplus profits, arising out of the fact that different entrepreneurs work in different circumstances. Just as there are natural differences in the quality of land, so there are differences in organising and risk-taking abilities. There are exceptionally able and fortunate businessmen of the type of Tata, Henry Ford, and Bata, as well as ordinary ones. The former enjoy a *rent of ability* arising out of exceptional skill or ability, and this is their surplus profit.

Now the first of these is more or less a kind of wages. It is only a superior type of wages—the wages of management. In fact, it should be considered under the heading wages. It is determined also, like wages, by supply and demand.

Coming to the second of these, this is also determined by the law of supply and demand.

Normal profit depends upon the demand for entrepreneurs at any time and in any industry, and the supply of them. The demand for entrepreneurs depends upon the field for enterprise in the country, that is, the number of businesses waiting to be started, while the supply price of entrepreneurs depends upon the amount of profits that induce the entrepreneurs to undertake the enterprise. If, relatively to the demand for them, the supply of a particular class of entrepreneurs increases, their marginal productivity will decrease and the profit in that industry will go down. If, on the other hand, the number of entrepreneurs relatively to the demand of a particular industry or business becomes less, then the marginal productivity will be high and the rate of profits in that industry or business will be high, too. For example, in America and England, the number of such people as are prepared to undertake risks of various kinds is very large as compared to that in India; and for this reason we find that profits are smaller in America and England than they are in India.

The amount of profit has to be fairly large before risk-takers come forward in India, while in other countries even in the expectation of much

smaller gains a large number of people come forward to undertake risk. This does not, however, mean that profits in India are actually high. The agricultural industry in India is being carried on at a loss tradesmen and commercial people do not earn large profits, the condition of industries run on cottage lines and on a small scale is as bad as that of agriculture, and even the industries on a large scale are making only small profits. There being little spirit of enterprise in the country on account of uncertainty on various grounds, very few enterprises are undertaken, and fewer still succeed. In the long run, of course, higher profits will attract more entrepreneurs to the industry, and profits will tend to fall till they reach the normal level, that is to say, till they are so low that the entrepreneurs are only just induced to remain in that industry. Similarly, lower profits will force those marginal entrepreneurs, who do not get even the minimum of profits necessary to keep them in the profession, to go out of field, and the diminution in the supply of entrepreneurs will raise the profits till they reach the normal level.

This cannot, however, be said about the third part, i.e., surplus profit, which is in the nature of rent and is determined like rent. Rent of a fertile plot of land is higher than that of an ordinary plot, because of superior fertility; in the same way surplus profit is due to superior qualities present in one businessman, which are not present in another. And just as rent does not enter into the cost of production of a commodity, and so does not affect

price, in the same way surplus profit does not enter into the cost of production of the article, and therefore, does not affect price. Surplus profits have no price and no theory.

We conclude then that although pure profit is made up of 3 parts, (i) wages of management, (ii) reward for risk, or normal profits, and (iii) surplus profits, but as the first one would better be considered under wages, *pure profit, really speaking, is made up of only 2 parts (i) normal profits and (ii) surplus profits.* Of these, the first one, i.e., normal profit, is determined by the demand for and supply of entrepreneurs, and enters into the marginal cost of production, thus determining price. (When the entrepreneur undertakes any business he calculates some minimum return for his risk-taking in his cost of production, just as he includes the wages of the labourers and the interest on capital. Without having this minimum profit in his supply price, he would rather remain out of the field.) But the second part of profit, i.e., surplus profit, does not enter into the marginal cost of production, and does not influence price—Normal profits enter into normal price, and above this normal rate, profits are just like the rent of land.

#### Profits and Price —

According to WALKER, profit is simply the rent of superior ability, and just as rent is not the cause of price, profit also is not the cause of price. That is to say, cost of production price in the market is determined by the cost of the marginal firm or the

no-profit firm, and profits, being a surplus above this, cannot be said to enter into the price of produce. ( A marginal firm is that which just finds it worth while to pull on under the existing circumstances. Its cost of production per unit is the highest, and its selling price just covers the expenses of production and only enables the producer to go on without loss. It is just able to pay its way. )

But according to MARSHALL the marginal firm that determines price in the market is not the no-profit firm but the average or representative firm ( a firm which has had a fairly long life and a fair degree of success which is managed with normal ability and which has access to the normal economies of production ) which earns a normal rate of profits; and, therefore, normal profits do enter the price. [MARSHALL thinks that when an entrepreneur undertakes any business he must calculate some minimum profit in his cost of production, otherwise he would not undertake the business. He must include this normal profit in his cost of production.]

Thus to say that profit does not enter into the marginal cost of production, and, therefore, does not determine price, would be wrong. It would certainly be wrong to say so for the whole of profit. This can only be said about surplus profit which is only a part of profit as properly understood. The other part of profit, e. g., the remuneration for risk-taking or normal profit, must be covered by the marginal cost of production or price in the long run :

"Normal profits enter into normal price, only surplus profit does not "

### Nature of Profit.—

(a) *Profits tend to equality.*—There is no absolute rate of profit for all industries. If all the industries would have commanded the same rate of profits then entrepreneurs would have little inducement to enter industries which involve greater risks and are more difficult to manage than others. Just as lands differ, and, therefore, rents differ; labourers differ, and, therefore, wages differ, similarly, abilities of entrepreneurs differ, and therefore profits also differ.

But as regards one particular industry, or as regards those industries which involve equal risk, the rate of profit may tend to equality, and there may be normal rate of profit for such industries, and in such cases we may hold that profits tend to equality.

(b) *Profits tend to a minimum*—Like the tendency of interest, the tendency of profits is to fall as the general level of business intelligence and ability improves with progress. As knowledge becomes more and diffused, as the risks of business are gradually diminished, as more and more able men take up business, and as organisation of business becomes more systematised, the opportunity for making exceptional gains becomes less and less and profits fall.

But against this, it may be said that there will still be new wants, new inventions and new indus-

tries, and chances of new profits will still continue.

### **The field for enterprise in India.—**

We are rich in natural resources, have plenty of labour and can mobilise capital in the country, yet enterprise has been and is slow in India. That is to say, successful entrepreneurs or men with capital, business acumen, technical knowledge and administrative capacity who form the backbone of industrial life in England and America are still rare in India. Why has this been the case?

The reasons for this state of affairs are :—

(i) India is an agricultural country and the people of an agricultural country are generally conservative and unenterprising. Their standard of living is deplorably low and they are in a state of pathetic content.

(ii) The present system of education is defective. It turns out people who are able to do clerical work only. It is too literary, and there is no provision for technical education and practical training.

(iii) The number of banks in the country is small and the people have not learnt the banking habit, with the result that capital is immobile and does not flow freely into productive channels.

(iv) Because of mismanagement and fraud, companies formed in the country in the past failed, and failures made the people suspect of new ventures. This gave a rude shock to public confidence in joint-stock companies and the organisers of companies receive little encouragement from the public now.

(v) The policy of the government has not been conducive to the encouragement of industries. Foreign nations have been freely allowed to invest their capital in our country and to dump their goods on our markets, and protection granted to our industries in the past has proved quite meagre and inadequate.

To remedy the situation it is necessary that the standard of living of the Indian masses should be raised, a proper system of education, specially technical and industrial education should be provided, a good banking system should be organised, a bold policy of encouraging national industries should be adopted by the Government, and strong sentiment for Swadeshi should be developed among the people and then a rise in the entrepreneur class and consequent industrial development of the country will be assured.

We must also not forget that "Indian business always follows the beaten track," and this is a great defect. What is needed is push, tact, business honesty, principle, character, foresight, and above all, enterprise and initiative. We must try such industries as forest industries (it is calculated that at present only one-fourth of the forest potentialities are utilised for productive purposes), fishing industry (it is at present carried on only by low caste people on the most primitive lines), mineral industries (there are at present only three iron and steel works, and none to manufacture machines, or railway vehicles or motor cars or even cycles, and then we do not make proper use of our manganese



and mica and other such minerals ), ship-building industry, chemical industries, leather industry, making of pins and needles, paints and varnishes, gramophones, radios, and electric goods, etc., etc. Then we can introduce modern methods in agriculture, and cheap sources of power and efficient labour in industries and can develop our tea and rubber industries, paper and cotton industries, etc, etc. There are so many fruitful opportunities for industrial enterprise in the country; but they all depend, more than on anything else, upon help and encouragement from the Government. A large production and distribution must, therefore, <sup>be</sup> ~~the~~ be our watchword, and we must find it possible to compel the government to rebuild our economic system on sound lines.

The problem at the present moment is particularly serious. Demobilisation of the army, contraction of war industries and consequent release of labour, and the cut-throat competition between countries for the sale of consumption goods to India are sure to accelerate the pace of unemployment in the country, and unless the Government does economic planning and sincerely means to bring about an economic development of the country, the future of India is very dark, indeed. The Bombay Plan has, no doubt, evoked great enthusiasm in the country for the economic development of India. But the aim cannot be achieved, unless the Government of the country is sympathetic, and decides upon a bold policy of industrialisation and nationalization.

### Profits and Wages —

(1) There is a regularity in the rate of wages but there is no regularity in profits—the same enterpriser may have a very large profit this year and next year he may have no profits at all, but the wages of the same work man will not fluctuate as greatly from year to year. Again the wages of labourers of the same grade do not vary by any considerable amount while the variations in the profits of businessmen of the same grade are much more considerable due to the chance element in profit.

(2) The differences in the profits of different entrepreneurs belonging to different grades are very great, and such great differences are not to be found in the wages of labourers of different grades. This is due in some measure to chance, but largely it is due to the possession by some individuals of qualities not possessed by others.

(3) With the fluctuations of prices, profits fluctuate and the fluctuation in the rate of profit is greater than the fluctuation in price. But wages are fixed by contract and cannot rise or fall as fast as prices, "wages are the last to rise or fall."

### Profits and Interest —

Interest is the reward for the services of capital, while profits are the reward for risk taken. Interest is paid in advance, while profit is a residue. Interest is fixed, while profits fluctuate very widely. Thus they are different. But both the rate of interest and the profits have a tendency to fall with the growth in civilization and increase in

competition. Likewise, when prices rise, both profits and interest tend to rise.

### Profits and Rent.—

Profits tend to fall owing to an increase in the number of men of superior ability—i. e., increase in the supply of entrepreneurs—while rent of land tends to rise because natural resources are fixed in quantity. But just as ground rent does not enter into price, though scarcity rent does; similarly, surplus profits do not enter into price, though normal profits do.

### QUESTIONS

1. What are profits? Why is payment of profit necessary in the economic system of today?
  2. How do profits arise? Distinguish between gross and net profits.
  3. How are profits determined? What are the causes of the existence of greater inequality in profits as compared to wages and interest?
  4. Analyse profit into its various constituents, and say whether profit does or does not enter into price.
  5. Distinguish between rent and profit, and bring out clearly the points of similarity between the two.
  6. "The field for enterprise is vast in India, but, enterprise has been and is slow in appearing." Why has this been the case? How would you remedy the situation? Has there been any extension of the field for enterprise in India in recent times?
  7. "India has abundant natural resources, a plentiful supply of labour, and a large amount of inactive capital." Discuss fully what fruitful opportunities are available to enterprise in India to mobilise the productive resources of the country. Give examples.
-

PRACTICAL  
&  
NUMERICAL

# General heads of classification for carrying out the economic survey

## of a village

### 1. Population.—

- (a) Total population.
- (b) Male and female population.
- (c) Number of males between 15 and 55 (the working age).
- (d) Number of females between 14 and 45 (reproductive age).
- (e) Numbers of peoples of different religions.
- (f) Number of permanent immigrations and emigrations and their causes.
- (g) Number of temporary immigrants and emigrants.
- (h) Density of population.
- (i) Annual increase or decrease of population.
- (j) Birth rate and death rate, infant mortality etc.

### 2. Occupations of the people.—

- (a) Weavers, potters, carpenters, etc.
- (b) Merchants and traders.
- (c) Money-lenders.

### 3. Health and Sanitation.—

- (a) Sanitation, drainage and conservancy arrangements.
- (b) Hospitals, dispensaries and doctors.
- (c) Nature of water-supply for drinking purposes.
- (d) Prevalence of epidemic and other preventible diseases like malaria, and the loss of working hours due to them.

### 4. Education.—

- (a) Number of literates and illiterates.
- (b) Percentage of literacy between males and females.
- (c) Schools, primary and secondary; and craft schools.

### 5. Industries.—

- (a) Agriculture: Area cultivated; kinds of soil, crops grown; size of holdings; irrigation facilities—number of tanks, wells and presence or absence of canals, methods of drawing water, Persian wheels, tube-wells, etc.; condition of live-stock and cattle;

number of co-operative societies of different kinds, extent of indebtedness—total and per head; subsidiary agricultural industries; methods of marketing, system of rent, etc.

(b) Industries, Mills, (e.g., flour mills) and cottage industries—also their organisation, marketing, financing, and their general state of trade.

(c) Means of transport, presence and quality of roads, transport during the rains, cost of transport, etc.

## 6. Economic conditions of the village.—

(a) Average income and wealth.

(b) Persons in the village above and below the line of poverty.

(c) The general standard of consumption of the agriculturists, artisans, middle class men, and others, through their family budgets.

(d) Rates of wages, rents and profits, and methods of payment.

(e) Rates of interest prevalent, and the extent of indebtedness.

(f) Expenditure on socio-religious functions, along with the social customs and habits of the people.

(g) Conditions of labour, methods of production etc., etc.

(h) Organisation of the village, various officials in the village, etc., etc.

—

B

## Instructions for collecting facts and

### figures for the construction

### of a family budget

1. Extreme care should be exercised in the selection of a family. A fairly representative family should be selected, containing earning as well as non-earning members (say, husband, wife, three children or dependents); that is to say, the type of family which is most commonly met with—neither too big nor too small.

2. The period of the budget to which the proposed enquiry is to relate is to be carefully decided upon in the very beginning. A period of one month which is neither too

short nor too long is probably the best and most suited for the budget of consumption; but it may be a season in the case of farmers who sow and reap two or three crops in the year.

3. Questions which the investigator is likely to ask for the purpose of his investigation should be put down beforehand and should be classed under suitable headings, so that the task of investigation may become easy. Only such questions should be asked as are capable of being easily and quickly understood by the simple, illiterate people whose budgets are to be framed; and questions touching self-respect or private life, or such as are likely to cause annoyance are to be avoided. A list of all the questions to be put should be prepared beforehand, and should be classed under suitable headings, e.g., food, clothing, etc.

4. To avoid the suspicion, *the object of enquiry must be made clear at the outset*, so that the person whose budget is being framed may not take the investigator for an agent of the Government, collecting facts, say, for the enhancement of land revenue, for in that case he would very likely give exaggerated figures of his expenses of production and low figures of his income.

5. *The questions should be put gently and kindly in a friendly spirit*, and yet there must be an attitude of seriousness. The information should be got as tactfully as possible. Cross questions may be put, but they must be so worded that the person does not detect that he is being subjected to a cross-examination. Sometimes his immediate neighbours may also be consulted with a view to verify facts and figures, and if still there is any doubt about the accuracy of the information it should be rejected, but on no account should any remark be made that may be resented by the person.

6. If the farmer or the artisan whose budget is being framed does not supply the information in the form in which it is desired, the investigator should convert it to proper form himself rather than trouble him with a volley of unnecessary questions. For example, *it may be necessary to convert a part of a farmer's produce into money*—expenditure in kind into expenditure in money—for a good deal of grain, fruit and vegetables, which enter into his consumption are grown by him. This should be done on the basis of prices prevailing at the time, and the quantities and the rates of the commodities should be noted.

While enquiring the losses of the farmer, or the artisan, which are often very small and liable to be forgotten, some, very common items of loss should be suggested, too, to elicit information, e.g., loss due to breakage of the pots before, and after, baking in the case of a potter and loss due to death of cattle, loss due to wild animals, and birds, and loss due to erosion in the case of the farmer.

7. Short notes should be taken of the answers, and as soon as the investigator returns from the work of investigation, he should duly enter the information in the regular form, otherwise facts are likely to become mixed up or to slip from memory.

11-10,

d. t. C.

C

## GROUPS OF HEADS

Under which consumption budgets are generally framed :

(a) Food (b) Fuel & Light

Heat & Light Fuel & Light

House & Shelter Housing

Clothing & Shoes Dress

Health & Education Medicine

Entertainments Education

Social & Religious Religious

Expenses

Services Social

Miscellaneous Travel

Savings & Investments Amusements & Luxur

Debt Payment Miscellaneous

(c) (d)

Food Fuel

Clothing Fuel

Housing Light

Heat & Light House Rent

Health & Education Clothing & Footwear

Miscellaneous Household Requisites

Savings & Investments Miscellaneous

(e) (f)

Food Fuel

Clothing Fuel & Lighting

House House Rent



Education	Clothing
Medical	Umbrellas
Servants	Shoes or Sandals
Ceremonial & Social	Bedding
Recreation & Travel	Household Necessaries
Debt Payment	Miscellaneous
Food	Food
Clothing	Clothing & Footwear
Housing	Rent
Heat & Light	Fuel & Light
Health & Education	Household Requisites
Miscellaneous	Miscellaneous
Savings & Investments	
Food and Drink	Food and Drink
Clothing and Jewellery	Clothing
Shelter	Lodging
Health & Education	Fuel & Light
Services & Entertainments	Education
Miscellaneous	Health & Sanitation
Savings & Investments	Personal Services
	Litigation
	Religious & Social expenses
	Household Furniture
	Recreation
	Travel & Correspondence
	Debt Payment
	Savings
Note:—There is no hard and fast rule about the headings—these depend upon the purpose of enquiry.	

( ) D

# ACTUAL BUDGET OF CONSUMPTION of

**Khamani, cultivator,  
of Nagla Padam in Aligarh District**

*[ Period covered by the Budget—one year i.e. July 1937  
to June 1938 ]*

Family		Income
1	Himself	After deducting all expenses of production and all marketing expenses from the sale proceeds of his produce of both the seasons he got a net balance of Rs 410
2	His wife	
3	His son age 17	
4	His son aged 8	
5	His daughter aged 12	

He also retained a portion of his produce for his consumption and the value of it at the market rate was Rs 190/

Thus the total income during the year was Rs 410/ + Rs 190/ i.e. Rs 600/ and this he spent as follows —

<b>1 Food</b>		
Wheat	140 0 0	[of his own produce]
Jwar and Bajra	15 0 0	[of his own produce]
Gram	15 0 0	[of his own produce]
Pulses	20 0 0	[of his own produce]
Rice	10 0 0	
Milk	40 0 0	
Sugar	5 0 0	
Gud	10 0 0	
Salt	2 0 0	
Spices	5 0 0	
Ghee	40 0 0	
Oil for cooking	12 0 0	
Vegetables and fruits	6 0 0	
Sweets	10 0 0	

330 0 0 55 p c

## 2. Heat and Light :

Fuel (i.e., firewood) 10 0 0

Charcoal and uplas 2 0 0

Kerosin oil for

lighting and

match boxes 6 0 0

---

0 0 0

0 2 0

0 2 0

## 3. Lodging :

Rent 15 0 0

Repairs 3 0 0

---

18 0 0

## 4. Clothing :

Clothes 10 0 0

Bedding 6 0 0

Shoes 2 0 0

---

18 0 0

18 0 0 3 p.c.

18 0 0 3 p.c.

18 0 0 3 p.c.

## 5. Health and Education :

Nil

## 6. Legal expenses :

Litigation 33 0 0

Chowkidari tax 3 0 0

---

36 0 0

36 0 0 6 p.c.

## 7. Social and religious

expenses :

Katha 6 0 0

Pilgrimage, Ganga

Ashnan, etc., 15 0 0

Janeo ceremony 15 0 0

---

36 0 0

36 0 0 6 p.c.

## 8. Comforts and

luxuries :

Tobacco 12 0 0

Pan Supari 1 0 0

Bidi and Cigarettes 1 0 0

Guest 5 0 0

Dangal 3 0 0

Others 2 0 0

---

24 0 0

24 0 0 4 p.c.

9	Miscellaneous			
	Barber	2 0 0		
	Washerman	2 0 0		
	Travel	2 0 0		
	Postage, news papers etc	1 0 0		
	Soap	1 0 0		
	Bangles, combs, etc	0 8 0		
	Others	3 8 0		
		<hr/>	12 0 0	2 p c
10	Savings			
	Interest and debt payment	50 0 0		
	Necklace for daughter	58 0 0		
		<hr/>	108 0 0	18 p c
		<hr/>	600 0 0	100 percent

*Note* — The year for which the budget has been drawn was a prosperous year, and in view of the fact that his daughter was of a marriageable age, the cultivator made his best endeavour to save during the year. He purchased a necklace for his daughter with this end in view, and he paid off a part of his old debts so that he may be in a better position to borrow again on the occasion of the marriage.

# DIAGRAM

showing the Consumption Budget of Khamani cultivator, of Nagla Padam in Aligarh District.

Period : one year Total income : Rs. 600/-

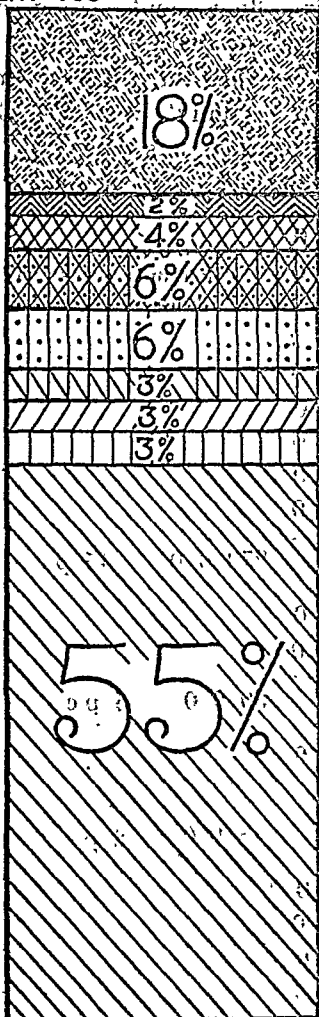
Number of members in the family

Men 2, Woman 1, Children 2 (under 12)

Total (adults) 4

Children under 12 to be counted as half-adults

PERCENT 100



SAVINGS

MISCELLANEOUS

COMFORTS & LUXURIES

SOCIAL & RELIGIOUS

LEGAL EXPENSES

CLOTHING

LODGING

HEAT & LIGHT

FOOD

Each rectangle represents the expenditure on the item mentioned therein, and the whole figure shows the total expenditure.

Rs. 600-0-0

M. E. D. A. I. T.

**ACTUAL BUDGET OF CONSUMPTION**

of Chet Ram, mason, and his wife

of Sudamapuri, Aligarh

[ Period covered by the Budget—one year ]

Family :

Income :

1. Himself earned during the year Rs. 350/-; his younger brother who also does the work of a mason earned Rs. 50/- by grinding flour and doing other work of a coolie woman.
2. His younger brother, aged 18
3. His wife
4. Two sons aged 10 and 6
5. One daughter aged 2

Thus the total income of the family was Rs. 600/- and this was spent as follows :—

1. Food :		
Foodgrains	140 0 0	
Vegetables	15 0 0	Taken only occasionally by Children
Milk	10 0 0	
Curds	10 0 0	
Ghee	40 0 0	
Oil for cooking	10 0 0	
Spices and salt	10 0 0	
Sugar and Gud	15 0 0	
Sweets	20 0 0	
	270 0 0	45 p.c.
2. Heat and Light		
Fuel	24 0 0	
Oil for lighting	6 0 0	
	30 0 0	5 p.c.
3. Lodging :		
Rent	48 0 0	
Repairs	Nil	
	48 0 0	8 p.c.
4. Clothing :		
Clothes	32 0 0	
Bedding	15 0 0	
Umbrellas	3 0 0	
Shoes	4 0 0	
	54 0 0	9 p.c.

## 5. Health &amp; Education :

Medicines 8 0 0

Pathshala fees 4 0 0

Books and stationery 3 0 0

15 0 0 245 p.c.

## 6. Legal Expenses

Nil

## 7. Social and Religious expenses :

Congress subscrip-  
tion

2 0 0

Durgā Poojā 10 0 0

Mundan 15 0 0

18 0 0 3 p.c.

## 8. Comforts and Recreation :

Pan 6 0 0

Tobacco 24 0 0

Cinema 15 0 0

Toys for children 3 0 0

Intoxicants, Bhang,

Toddy, etc. 84 0 0

132 0 0 22 p.c.

## 9. Miscellaneous

Barber 3 0 0

Washerman 4 0 0

Sweeper 2 8 0

Postage 0 8 0

News-papers 0 8 0

Ekka hire 0 8 0

Soaps, hair oils,  
bangles, combs,  
etc.,

1 0 0

12 0 0 2 p.c.

## 10. Debt payment :

Interest on loan  
and part payment  
of principal

21 0 0

21 0 0 3.5 p.c.

Total ... 600 0 0 100 p.c.

Note.—The person spends very heavily on intoxicants and, therefore, has run into debt. Otherwise, his standard of living is very low.

# DIAGRAM

showing the Consumption Budget  
of Chet Ram mason, of Sudamapuri, Aligarh.

Period: one year. Total income : Rs. 600/-

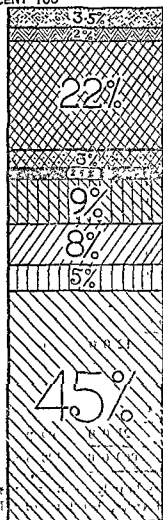
Number of members in the family :

Men 2 Woman 1 Children (under 12) 3

Total (adults) 4½

(Children to be counted as half-adults).

PERCENT 100



SAVINGS

MISCELLANEOUS

COMFORTS & RECREATION

SOCIAL & RELIGIOUS

HEALTH & EDUCATION

CLOTHING

LODGING

HEAT & LIGHT

Each rectangle represents the expenditure on the item mentioned there in, and the whole figure shows the total expenditure

Rs. 600-0-0



of processes of production —

Mon and Jwar —

Manuring in the middle of June

Watering a week later

First ploughing about the end of June

Second ploughing accompanied with sowing  
in the first week of July

Weeding (twice or thrice) about the 2nd and  
3rd weeks of July

During the intervals of weeding the culti-  
vator will spend his time in ploughing the other  
plot for wheat, with a view to prepare the  
round ]

Keeping a watch over the crop

Harvesting (reaping) towards the middle of October

threshing (in the case of jwar) and Picking  
in the case of cotton)

Harvesting

Mon and Sarson —

Manuring in June—along with the first plot

continued ploughing (about 8 or 10 times) from  
the middle of September to the middle or the  
end of October

Sowing about the middle or the end of October

making of irrigation beds Khar maling and  
Ab maling etc three or four days after

Watering about the middle of November to  
such as many times as possible but not less  
than thrice

Harvesting at the end of November—once only

Harvesting (or reaping) in April

threshing

Harvesting

2. List of tools required in the above processes, and the value of their depreciation :—

Tool	Life	Cost	Depreciation during the year
For ploughing—			
Rs. A. P.			Rs. A. P.
One plough	5 years	5 0 0	1 0 0
One pair of bullocks	10 „	150 0 0	15 0 0
Yoke, rope, etc.	4 „	2 0 0	0 8 0
For watering—			
One leather bucket			
(Charsa or Pur)	3 „	6 0 0	2 0 0
One big rope (Burt)	3 „	3 0 0	1 0 0
One set of wooden pulleys (Ghirri)	4 „	1 8 0	0 6 0
For digging drains, etc.—			
One spade (Phaora)	4 „	1 0 0	0 4 0
Board for making irrigation beds	1 „	0 4 0	0 4 0
For weeding—			
Four hoes (Khurpis)	4 „	1 0 0	0 4 0
For levelling.—			
One Patela or Pata	4 „	1 0 0	0 4 0
For cutting.—			
Four sickles (Hasyas)	4 „	1 0 0	0 4 0
Miscellaneous.—			
One Panchangure, for turning the crop when it is being trodden by bullocks for separating grain for chaff	2 „	0 6 0	0 3 0
One garansi (chopper)	4 „	0 8 0	0 2 0
Four baskets	1 „	0 4 0	0 4 0
One cart	10 „	30 0 0	3 0 0
Repairs of tools and implements			1 0 0
Miscellaneous			0 5 0
Total Depreciation.			26 0 0

3 <i>List of raw materials used</i>				
Cotton & Jwar	Wheat & Sarson	Vegetables		
Seed 5/-	15/-	2/-	22/-	} 40/-
Manure 3/-	7/-	8/-	18/-	
4 <i>Rent of land</i>				
Rent of the plots for the whole year at the rate of				
0 0 0/-	at Rs. 5/ per Bigha	200/		
5 <i>Cost of labour</i>				
for weeding 15/-	7/-	22/-		} 40/-
for harvesting 8/-	10/-	18/-		
6 <i>Interest on capital</i>				
He has to pay interest on Rs. 150 that				
he borrowed for the purchase of bullocks 36/-				
at the rate of Rs. 2/ p c p m				
7 <i>Cost of transportation</i>				
He has his own cart—no expenses on transportation—				
8 <i>Cost of marketing</i>				
Arhat charges, etc. paid when selling				
0 0 1	the crops	10/		
9 <i>Losses caused by theft, insects, animals, etc.</i>				
10 <i>Water rates</i>				
Wheat & Sarson, Cotton & Jwar				
18/-	20/			38/
11 <i>Taxes</i>				
Octroi paid 10/				
12 <i>Value of produce raised</i>				
Jwar 50 maunds sold at Rs. 2/0/0 a md				100/
Cotton 40 " " sold at Rs. 5/0/0 "				200/-
Wheat 100 " " sold at 3/0/0 "				300/-
Sarson 20 " " sold at 5/0/0 "				100/
Vegetables " " " " " "				50/
13 <i>Value of by-products raised</i>				
Kharif—Karbi (fodder) 250 mds				
Out of these 50 mds retained for				
feeding the bullocks, and the rest sold 70/-				
Rabi—Bhus 250 maunds, out of this				
50 maunds retained for feeding the				
bullocks and the rest sold 80/				

[Thus the total value of the produce is

Jwar	100	0	0
Cotton	200	0	0
Wheat	300	0	0
Sarson	100	0	0
Vegetables	50	0	0
Karbi	70	0	0
Blus	80	0	0

900 0 0

and the total expenses are

Rent	200	0	0
Water rates	38	0	0
Depreciation and repairs	26	0	0
Seeds and manure	40	0	0
Wages	40	0	0
Interest	38	0	0
Cost of marketing	10	0	0
Taxes	10	0	0

400 0 0

and, therefore, the total gross profit of the cultivator during the year works out as follows :—

Income	900
Expenditure	400
Gross profit	500

Thus the statement of expenses would be as follows :—

	Amount	Percentage
Rent	200/-	22 2 p.c.
Depreciation and repairs	26/-	2.9 p.c.
Seeds and Manure	40/-	4.4 p.c.
Water rates	38/-	4.3 p.c.
Wages	40/-	4.4 p.c.
Interest	38/-	4.2 p.c.
Cost of marketing	10/-	1.1 p.c.
Taxes	10/-	1.1 p.c.
*Gross profits	500/-	55.5 p.c.
	900/-	100 p.c.

\*Gross profits include (a) wages of the labour of the producer himself and his family (b) interest on his own capital and (c) value of time spent in carrying on marketing. (These are to be calculated at the market rate, in order to give a correct idea.

On the other hand, the cultivator brought into his own use some jwar, wheat, sarson, and vegetables for himself and family, and blus and karbi and binola for his cattle; and these also have not been taken into consideration while valuing the produce raised.

# H

## Statement of the Expenses of Production of a Village weaver, Gumani, Kothi of Birpur

For a period of one month.

Family: Gumani, his wife, his son aged 14.

Gumani produces 10 pieces of cloth, each measuring 12 yards in length, in a month, 5 out of which are prepared with the ready-made yarn and the remaining 5 with the home-spun yarn.

### 1. List of processes of production :—

- (1) Spinning.
- (2) Washing the yarn.
- (3) Stretching of the yarn, and the spreading of it on pegs after two days.
- (4) Brushing the yarn.
- (5) Sorting and cording of the yarn.
- (6) Weaving.

### 2. List of raw materials used :—

Cotton for 5 pieces of cloth	
weighing 3 seers each	5 0 0
Ready-made yarn for the	
other 5 pieces weighing	
2 seers each	7 0 0
	12 0 0

### 3. List of tools required :—

	Cost	Depreciation during the month
For spinning—		
Spinning wheel or spindle	2 8 0	} 8/-
For washing two large earthen basins	0 8 0	
For stretching—		
Wooden pegs and a "comb"	2 0 0	
For brushing—		
Brush made of khus	3 0 0	
For weaving—		
A handloom	10 0 0	
A pair of shuttles which passed over warp and waft threads of cotton.	2 0 0	

4. Rent of land 0 8 0

5. Cost of labour :—

No extra labour is employed. Only Guman and his family people do the labour.

6. Interest on capital :—

He has to pay interest on Rs.

50/- the price of tools

and on another Rs. 30

for the purchase of

yarn, etc.

7. Cost of transportation :—

8. Cost of marketing, advertising, etc. nil

9. Taxes—octroi duty

10. Value of the cloth made and sold :—

$5 \times 12 = 60$  yds. at  $\frac{1}{4}$  per yard  $15/-$

$5 \times 12 = 60$  yds. at  $\frac{2}{3}$  per yard  $18/12/-$

11. Value of bye-products Nil

Thus the costs of production may be summarised as follows :—

Raw materials

Rent

Depreciation

Interest

Taxes

Gross profits

19/12/-

33/12/-

Percentages may now be worked out and shown in the diagram as in the case of the expenses of production of Hodal Singh cultivator in the last example.

Note—The gross profits here also include wages of the labour of the weaver himself and his family and these must be deducted at the market rate before the net profit or loss can be determined. For example, if we calculate the wages of the weaver himself and his wife and son at the market rate, and find them to be Rs. 8/-, Rs. 5/- and Rs. 4/- for the month, then the weaver's net profit (for enterprise) would actually be Rs. 19/12/- minus Rs. 17/4/- (Rs. 8 + Rs. 5 + Rs. 4), that is Rs. 2/12/- in all.

I

# Summary Statement of the Expenses of the Production of a sugar mill at Meerut producing sugar worth, say, Rupees five lakhs in a year.

Items	Amount	Percentage
Raw materials	2 lakhs	40 p c
Rent	10,000	2 "
Interest	20,000	4 "
Wages	1 lakh	20 p c
Expenses of management (office, manager, secretary)		
Depreciation of tools and machinery	20,000	4 p c
Power ( coal and wood )	10,000	2 p c
Trade expenses (advertisement, transport, postage and telegrams, etc. )	10,000	2 p c
Losses due to special reasons	5,000	1 p c
Taxes ( Sugar excise duty, income tax, etc. )	5,000	10 p c.
Income ( Profits )	5 lakhs	100 p c.
Transferred to Reserve Fund		
Distributed as dividend		

1972

1972

1972

1972

## Diagrammatic Representation

I

Percent

Income Statement

100

100

15%

Income (profits)

20

15% Losses due to special reasons

10

2% Trade expenses

80

10%

Taxes

1%

0

1% Losses due to special reasons

2

2% Trade expenses

70

4%

2% Power (coal and wood)

60

20%

Depreciation

50

4%

Wages expenses of management (office, manager secretary)

40

4%

Interest

30

40%

2% Rent

20

40%

Raw materials

10

40%

Raw materials

Scale—

Horizontal

1"=Rs 5 Lakhs

Vertical

1"=20%



... ..  
... ..

... ..  
... .. **Some Questions and Answers** ... ..

1. If you were asked to give a brief economic survey of your village, how would you classify your main heads of enquiry?

[ See § A ]

2. You are asked to collect facts and figures for the construction of a family budget. How would you set about the work, and what care would you take in this connection?

[ See § B ]

3. Under what general heads would you classify the expenditure of (a) a cultivator in a village, (b) an artisan in a town? Have you any comments to offer?

[ See § D & E ]

4. Prepare a family budget of consumption of a University professor earning Rs. 400/- a month, and having the following members of the family to support :—

1. Himself
2. Wife
3. Mother
4. Wife's brother
5. Three children aged 10, 4 and 1.

[In framing the budget it must be kept in mind that the gentleman for whom the budget is being framed is an educated person, and will spend on books and newspapers, on doctor's fees and medicines (also on phenyl, etc.), on club subscription and charities, on trips and picnics, on children's education including private tuition, etc., etc., as much as on other necessities and comforts. He will probably have to contribute to the Provident Fund Scheme and very likely pay for his Life Insurance. He will also have to pay income-tax.]

5. Prepare an imaginary budget of a mill-worker in Cawnpore getting Rs. 60 a month, or of a railway clerk at Delhi getting Rs. 60 a month. Both the families consist of 4 members each. Find out the percentage expenditure of each group of items to the total expenses, and offer your suggestions.

[ As in the previous examples ]

6. Write out imaginary budgets for two families whose incomes are Rs. 30 per mensem and Rs. 3000 per mensem respectively. Explain the difference in the proportions spent under different heads in the two budgets. Give only the main heads.

[ See § F, also see Chap. 8 Engel's Law ]

20. Safas Rs. 4. 12 as.  
12

21. Debt payments Rs. 2

6

2 0

Total 19 2

These can be classified as shown below:

Rs. as.

1. Food :  
Ata 4 4  
Rice 1 7  
Vegetables 8  
Oil for cooking 8  
Salt 1  
6 13 0 35.63 p. c.

2. Heat and light :

Kerosin oil 10  
Wood 1 14  
2 8 0 13.67 p. c.

3. Clothing :

Shoes 2  
Dhoti 8  
Safas 6  
Coat 1  
1 3 0 6.21 p. c.

4. House rent :

5. Miscellaneous :

(i) Charges for domestic service 4

(ii) Comforts and

Luxuries :

Sweets 8 This item may preferably  
Pan 8 be taken to "Food" column.  
Tobacco 15

Liquor 3

Cinéma 4

(iii) Interest on debt 2

(iv) Taxation 4

(v) Purchase

and renewal

of furniture 2

3. Wear and tear of capital, i.e. depreciation of machinery, building, etc. Approximately 1,000/-

4. Expenses of management, i.e., salaries of the staff of the factory including the manager and secretary, and also the proprietor. 3000/-

5. Trade expenses, such as travelling, salesmen, commission agents, catalogues and price lists, advertising, insurance charges, etc., etc., 2,000/-

6. Losses or other subtractions. 500/-

7. Taxes 500/-

8. Price or net profits, i.e., the reward for A's risk-taking or enterprise. 2,000/-

Total sale proceeds. 12,000/- ]

12. Suppose you have a mind to start a cotton mill or a sugar factory somewhere, what considerations would you have in selecting a suitable town or place for the purpose and what enquiries would you make before you begin the work?

[In order that a place may be suitable for starting, say, a cotton or jute mill, or a glass or sugar factory, the following general conditions must be fulfilled:—

(1) The place must be such that raw materials may be easily accessible.

(2) It must be a railway station so that transport may be easy.

(3) Cheap source of power should be at hand.

(4) Specialised labour must be available, otherwise they would have to be imported.

(5) There must be a Bank in the place.

(6) The climate must be suitable, for example, for cotton mills damp climate of Bombay is more suitable.

(7) In some cases, it must be a consuming centre so that there may be a local sale, e.g., Delhi Cloth Mills.

10. How much did you borrow from him ? 10. Rs. 150/- ; but I got only Rs. 130/- actually for I had to pay previous interest.

11. What interest do you pay him ? 11. He also charges half an anna per rupee per mensem.

12. Why don't you borrow from Banks ? 12. There are no Banks in the villages and the Banks in the town also refuse to lend without adequate security.

13. What is your income from the crops ? 13. About Rs. 300/- this year, though normally it is above Rs. 400/-.

#### Amount of Indebtedness

Loan from Govt. Rs. 40/- at 6% = Rs. 40/- + Rs. 2/6/6  
 „ „ „ Society 60/- at 10% = „ 60/- + „ 4/12/10  
 „ „ „ Zemindar „ 250/- at 37½% = „ 250/- + „ 93/12/-  
 „ „ „ Mahajan „ 150/- at 37½% = „ 150/- + „ 56/4/-

Total borrowing 657/3/4

Less income 300/-

Debt 357/3/4

14. Suppose you are conducting enquiries into the conditions of labourers in a cotton mill, write a list of about a dozen questions which you would ask the manager of a mill in order to assist your enquiry. Also write out the answers which you think you would ordinarily get.

Q. How many labourers are working in your mill ?

A. About 4,000 labourers.

Q. Are women and children also employed ?

A. We have about 400 women labourers in the weaving section, but none in the spinning section. We do not employ children ?

Q. How many hours do the labourers work ?

A. Male labourers for 10 hours and female labourers for 9. During this time they get an hour's rest.

Q. Do they get any holidays ?

A. Yes, on Sundays. Also some other holidays.

Q. How do you find the labourers ? Are they quite efficient in their work ?

A. Efficiency is a relative term. But like all Indian labourers, most of them are not very smart and enterprising, some of them are lazy and slow and some lack in sense of duty and responsibility and need strict supervision. On the whole, they are not quite up to the mark from the point of view of efficiency, with the result that the out-put per man is small as compared with other countries.

Q. What arrangements do you make for their lodging and fooding?

A. We are sorry the factory has not yet been able to arrange for their housing, and they make their own arrangements which are most unsatisfactory. Their houses are wanting in ventilation and healthy surroundings. And about 6 to 10 persons live in the same room. They make their own arrangements for the boarding.

Q. Does this not tell upon their health and mortality?

A. It does.

Q. Does not the Government or the Improvement Trust do anything to help the situation?

A. Yes, the Improvement Trust has slightly improved the condition by providing here and there suitable roads, good drainage system water-taps, septic tank latrines, conservancy, etc., and has also compelled the employers to pay attention to these matters. Some mill managers have of their own accord begun to make arrangements for providing windows and roof ventilation and lighting facilities in their quarters which they have built for them. They also adequately provide water for drinking and other purposes such as washing. But what has been done by them even is not at all sufficient, and conditions can hardly be said to be satisfactory. The number of mills in India which provide playgrounds and schools, hospitals and dispensaries, libraries and gymnasium and such other amenities of life can be counted on the finger of one's hand.

Q. Do you have any hospital or dispensary for your labourers?

A. Not a regular hospital, but we do have two qualified doctors and one nurse. We also give medicines free at times, but generally the labourers get the medicines from the market.

Q. Do you pay any compensation to the labourers when they meet with accident, while working? If so, to what extent?

A. Yes, sometimes we have to pay under the Workmen's Compensation Act. The amount depends upon the circumstances of the case.

Q. What is the rate of wages paid to the labourers ?

A. Men labourers get a start of Rs. 20/- a month, women labourers of Rs. 15/- but the salaries rise gradually and there are about 500 workers getting over Rs. 50/- a month, 50 workers getting over Rs. 250/- a month, about 50 over Rs. 500/- a month, about a dozen getting between 500/- and 2,000/- a month.

Q. Do the workers have a Union of their own ?

A. They have no separate union but they are all members of the local labourers' association, which is a strong body, indeed.

Q. Did they ever go on strike ? When did they go on strike for the last time ?

A. They also struck work when there was a general mill strike in the city. Otherwise, we have almost always been able to avoid such situation by our sympathetic attitude.

Q. Are there any government laws that regulate the number of hours of work and rest, the number of holidays, and other conditions of work in the factory ?

A. Yes, the Factory Laws, Mines Acts, Workmen's Compensation Act, etc., etc.

15. You have two annas in your pocket. There are three articles, each is being sold for half an anna. The utilities derived from successive consumption are as follows :—

Units	Utilities derived		
	Orange	Pencil	Cigarette
1st	10	8	6
2nd	7	4	3
3rd	5	2	2
4th	3	1	1

How many oranges, pencils and cigarettes will you purchase ?

[ A. First, I shall have an orange, for it will give the highest utility, next I shall buy a pencil, then a second orange and finally a cigarette.

That is to say, I shall buy two oranges, one pencil and one cigarette. ]

16 The following table shows the utilities derived by a person by spending money per week on butter and sugar —

Pence	Aggregate utility of Butter	Marginal utility of Butter	Aggregate utility of Sugar	Marginal utility of Sugar
1	10	10	9	9
2	18	8	16	7
3	24	6	20	4
4	29	5	23	3
5	32	3	25	2
6	34	2	26	1

(a) Suppose this person has 9 pence a week to spend on butter and sugar. How should he lay out the sum on these two articles so as to get the maximum amount of satisfaction?

(b) Is there any economic law according to which such distribution is made?

[ Ans. (a) He should buy 5 units of butter and 4 units of sugar ]

(b) Yes the Law of Equi-marginal Utility ]

17 A person has to buy milk, butter, sugar and tea. The utilities of these commodities to him as measured in annas are as follows —

Milk	30	28	24	20	16	12
Butter	26	24	20	16	12	10
Sugar	24	20	16	12	10	8
Tea	14	16	12	10	8	6

Supposing he spends in rupee units how many units of the commodities will he buy at the most and what will be the total amount spent?

[ A In the above example the utility is measured in annas. The man spends in rupee units. Therefore no unit will be bought the utility of which is less than 16 as ]

Therefore he will buy only 5 units of milk, 4 units of butter, 3 units of sugar and 2 units of tea. i.e. 14 units in all.

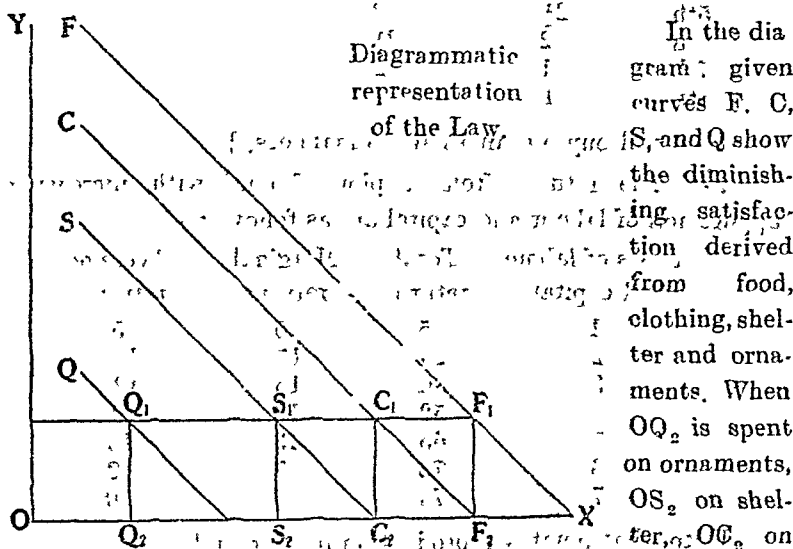
The total sum spent would be Rs. 14 ]

18. A man has Rs. 23 with him. He has to buy food, clothing, shelter and ornaments. Each unit costs Re. 1. How many units of each commodity will he purchase if the utilities of the different units are as follows :—

Food	Clothing	Shelter	Ornaments
10	8	6	3
9	7	5	2
8	6	4	1
7	5	3	0
6	4	2	
5	3	1	
4	2	0	
3	1		
2	0		
1			
0			

Is there any law according to which such distribution is made ? Give a diagrammatic representation of the law.

[ He will buy 9 units of food, 7 of clothing, 5 of shelter and 2 of ornaments.



19. I have 21 laddus. I wish to distribute them among four persons A, B, C & D, in such a way as to get maximum utility. The marginal utilities of the laddus to each of the



persons are noted below. State how I should proceed to distribute the laddus. How many will each obtain? What will be the total utility?

A	15,	13,	11,	9,	7,	5,	3,	1
B	20,	16,	13,	10,	8,	4,	1,	0
C	18,	10,	7,	4,	2,	1,	0,	0
D	25,	21,	18,	15,	12,	8,	6,	5

[ A will get 6 laddus, B 5, C 3, D 7.

A will derive  $15+13+11+9+7+5=60$  utilities

B " "  $20+16+13+10+8=67$  "

C " "  $18+10+7=35$  "

D " "  $25+21+18+15+12+8=99$  " ]

20. Oranges are sold at two pice each while mangoes are sold at one pice each. You have four annas in your pocket. The utilities from successive oranges & mangoes are as follows :—

	Mangoes.	Oranges
1st	20	15
2nd	10	10
3rd	4	5
4th	3	4
5th	2½	3
6th	2	2½
7th	1	2
8th	1	1

[ He will buy 5 oranges and 6 mangoes. ]

21. The returns from a plot of land with increasing application of labour and capital are as follows :

Doses of labour and capital	Total returns	Marginal returns	Average returns
1	5	5	5
2	20	15	10
3	36	16	12
4	52	16	13
5	65	13	13
6	72	7	12
7	70	2	10

Upto what point will production be carried ?

[The production will be carried here upto the 5th dose, because it is here that the marginal and average returns are equal. It may be carried still further, but not beyond the point where the cost of the additional dose of labour and capital is equal to the average return. Read Vol. I footnotes to the Law of Diminishing Returns]

22. The following table gives the marginal utility of different units of commodities X and Y to A and B :—

Units of commodity	Marginal utility of X commodity	Marginal utility of Y commodity
1	50	30
2	45	27
3	40	24
4	35	21
5	30	18
6	25	15
7	20	12

A has 7 units of X only and B has 6 units of Y only. If one unit of X is exchanged for one unit of Y, how many units of X and Y will be exchanged when A and B come in contact with each other? What would be the gain to both A and B as a result of this exchange?

[A will be willing to exchange 2 units of X for Y; B will be willing to exchange 5 units of Y for X. Thus only 2 units will be exchanged. [Read vol II pages 6—8.]

23. The utility of a commodity to a buyer is as follows:—

1st unit of the commodity	4 pice
2nd " " "	3 " "
3rd " " "	2 " "

If the price in the market is 3 pice, how many will be buy?

[2, because in the case of the 3rd commodity he will have to pay 3 pice while he will get a utility worth only 2 pice. Read vol. II Page 48, footnotes.]

24 Suppose that on a certain day in market

1,000 people	are willing to sell gobbis at 4 pice
4,000 " " "	" " " " " " " " 3 " "
10,000 " " "	" " " " " " " " 2 " "

And suppose 15,000 gobbis are on sale. What will be the price?

[2 pice, because if it is higher 10,000 gobbis will be left unsold. Read vol. II Page 49, footnotes.]

25. Give in one table the number of oranges that will be bought by a rich person, a middle class person, and a poor person at the prices noted below. Add up the number of oranges bought by the three persons at the different prices to show their total demand and then trace the total demand on a curve.

Prices per dozen:—16 as., 13 as., 9 as., 7 as., 5 as.

[Ans. see vol. II P. 32.]

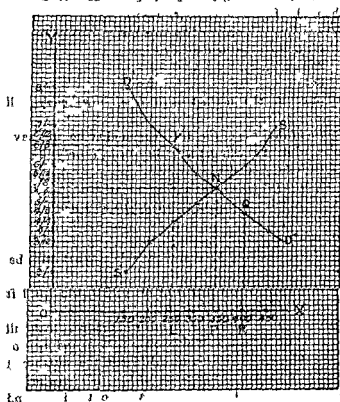
26 The following schedule represents the market for wheat on a certain day

Amount	Supply price	Demand price
100 maunds	Rs 3/ per maund	Rs 8/ per maund
200	3/12	7/
250	4/4	6/8
300	5/	5/10
350	5/8	5/4
400	6/	4/8
450	6/12	4/

(a) Plot the demand and supply curves of a commodity from the data given in the above schedule and determine the normal equilibrium price of the commodity and the amount that would be supplied at that price.

(b) What would you expect to happen if the amount of the commodity available in the market at any time is 200 maunds and 400 maunds?

[Ans. (a) Take two straight lines  $OX$  and  $OY$  at right angles to each other at  $O$ . Let ten small squares along



$OX=100$  mds and eight small squares along  $OY=Rs\ 1/$   
Measure maunds along  $OX$  and prices along  $OY$ . By plotting

points for the figures in columns 1 and 3 we get the demand curve  $DD'$  and by plotting points for the figures in columns 1 and 2 we get the supply curve  $SS'$ , which cut at the point  $V$ , which is the point of equilibrium, and  $OP$  is the normal price, which according to the units adopted equals Rs. 5/6 approximately, and  $OP$  will be the amount supplied at this price as well as the amount demanded.

(b) If the amount of the commodity available in the market (i. e., the supply) becomes 250 maunds only at any time the price will rise. If the amount of commodity available becomes 400 maunds, the price will fall due to supply being greater than demand.

27. Draw demand and supply curves according to the following schedules—

### Wheat Market

Demand (mds.)	Price (Rs. per md.)	Supply (mds.)
30	14	100
42	10	60
72	6	30
210	2	10

[First settle the scale thus—The highest price is Rs. 14 and the largest quantity is 210 mds. You can take one inch for Rs. 4, thus 14 will be represented by a line  $3\frac{1}{4}$ ". Similarly you can take one inch for 60 mds., so that 210 mds. are represented by a line  $3\frac{1}{2}$ ".]

Thus your scale is one inch for Rs. 4 (vertical).

and one inch for 60 mds. (horizontal).

You should not forget that prices are represented by vertical lines or along axis  $OY$ , and quantities by horizontal lines or along axis  $OX$ .

28. The following table gives the cost per passenger and the number of passengers that are likely to be carried by a certain railway company between the stations A and B at different rates :—

Rate	Number of passengers	cost per passenger
Rs. 4/-	1,500	Rs. 3/7
" 3/-	3,500	2/4
" 2/-	6,000	1/8
" 1/-	10,000	-/12

What rate would the railway company charge for carrying passengers from A to B?

35 How would you make payments of money in the following cases —

(a) You have to pay Rs 1000 as shipping fare to Thomas Cook and Sons, Bombay,

(b) You have to send Rs 1000 to your brother at Calcutta,

(c) You have to send Rs 10 000 to a marwari living at Indore,

(d) You have to pay £ 1,000 to a London bookseller for books purchased from him for the College library

(a) by cheque on my Bank,

(b) draft or telegraphic remittance,

(c) "Hundi" purchased from a Bank or Sahukar with office at Indore

(d) Banker's Draft (Bill of Exchange obtainable from an Exchange Bank)

36 Describe in detail any small or large scale industry that you may have visited

### **Aligarh Lock Industry.**

**History** — Started in 1850, as a result of the stimulus given by the Postal Workshop (now the Government of India Press). Being centrally situated, Aligarh could also attract labour on easy terms, and could purchase raw material (and sell off the finished products) through Delhi which is an important distributing centre and so near Aligarh.

This gradually led to specialization of labour and capital and established a good-will in the different parts of the country.

The industry had a fillip during the Great European War. Then there was a slump. But again, as a result of the present war the industry has made a splendid progress, and at present the manufacture of locks is being undertaken in almost every street of Aligarh. More than 5 000 workers are employed in the different processes, and the daily average output may be estimated at 30 000 to 40 000 locks, worth about Rs 8 000 to 10 000. Most of the locks are based on the lever device. Some locks have been patented.

**Processes of Manufacture** — Roughly speaking there are 3 stages in the making of locks (1) *Dhalan*, or the melting of the metal in order to mould the required patterns — *Gher*,

Pattas, Hūrka, Levers, Bhoghukhpan, etc., are prepared out of teak-wood and then pressed in sand filled into "Sanchas" then the melted metal is poured into these "Sanchas", and the required moulds are cast automatically on cooling. (ii) *Ritaii* or the cleaning of the various parts of a lock and adjusting them into a complete lock. (iii) *Polish*, rubbing the lock against a rough surface till it becomes perfectly smooth and shining, and nickel-plating or galvanizing, as the case may be.

**Raw Materials:**—Old brass utensils are obtained from Ahmedabad, Bombay, Rewari and Jahri. Iron sheets are obtained from the Tatas. But the supply of raw materials is not of the right type.

**Labour:**—About 5,000 labourers are working. This includes about 1,000 children. Working conditions (housing, light, ventilation, hours of work, holidays, etc.) are not quite satisfactory. Monthly wages of "Mistris" are:

in Dhalaii Rs. 30 to 40

„ Ritaii „ 80 to 100

„ Polish „ 50 to 60

others „ 20 to 25

**Capital.**—About Rs. 2 lakhs invested in tools and machinery. About Rs. 50,000 are spent on raw materials, etc., every month. Finance comes mostly from the proprietors themselves; sometimes small workers take the help of moneylenders, and big workers from the Banks.

The amount invested by individual firms ranges between Rs. 200/- and Rs. 2000/-. Machinery is got from Tatas or from Birmingham. Ordinary tools are locally produced and repaired. Since the value of a lock depends on its being different from other locks, the use of machinery is generally avoided except for plate-cutting and polishing purposes.

**Organisation.**—There are several types of producers (i) cottage industrialists, working with family labour and producing locks for sale to firms of commission agents, dealers and Beoparis at their own place, or sometimes also to shop-keepers in the town. These are generally indebted to Karkhanedars on whom they mostly depend for the supply of raw materials and the marketing of the finished goods. (ii) Manufacturers: These are either individual entrepreneurs or partnership firms, working independently on their own account and at their risk, obtaining raw materials, engaging labour in their workshops and selling their goods directly. (iii) Dealers or firms of commission agents—giving materials